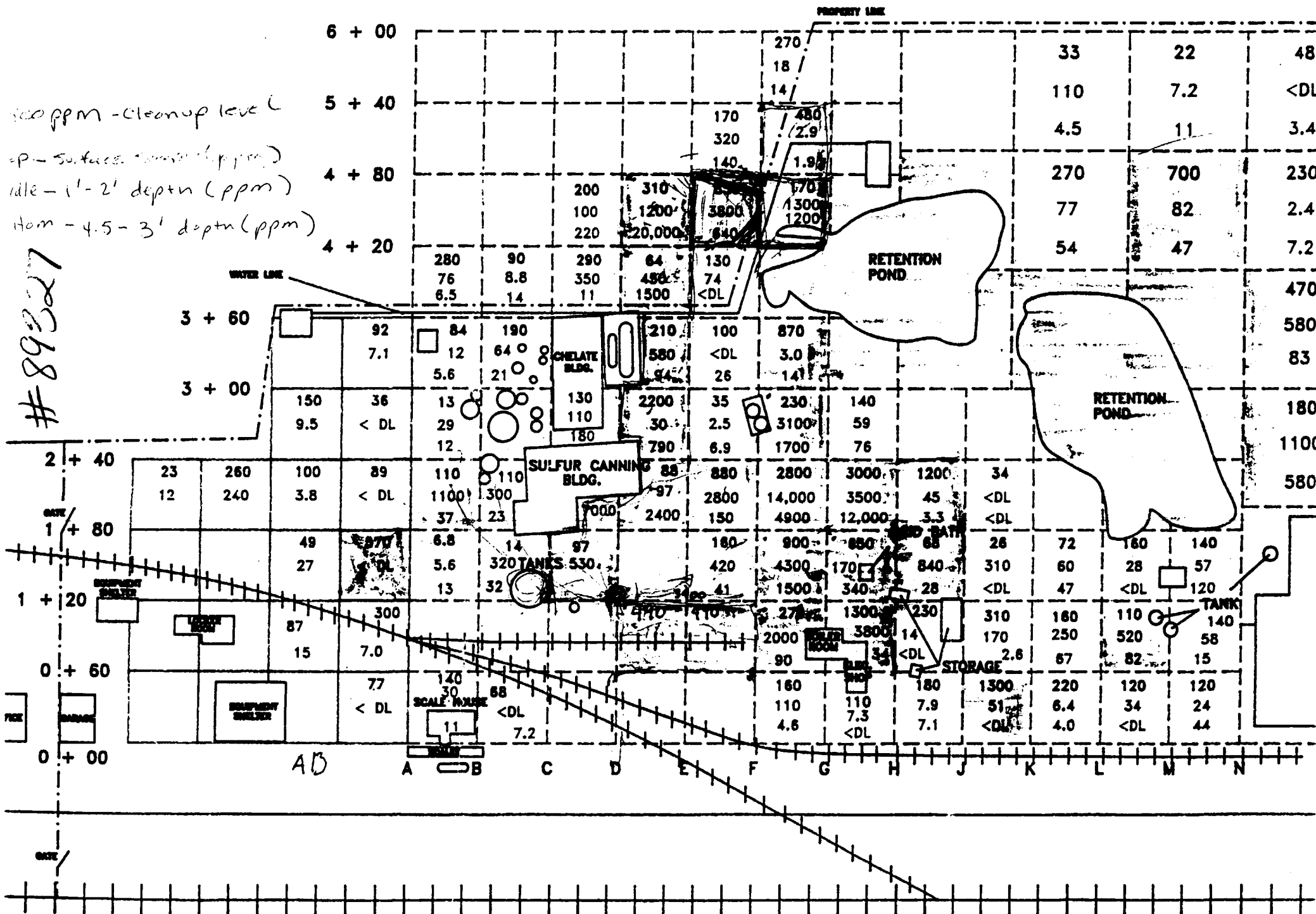
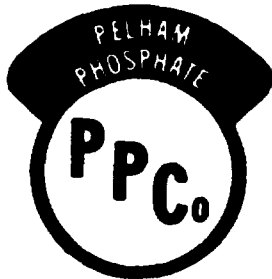


100 ppm - cleanup level
 -P- surface (ppm)
 -d- 1'-2' depth (ppm)
 -H- 4.5-3' depth (ppm)

#89327





PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF *Fertilizers and Superphosphate*

MAIN OFFICE · PHONE 912-294-2081
PLANT OFFICE · PHONE 912-294-8178
SALES OFFICE · PHONE 912-436-4677

POST OFFICE BOX 468
PELHAM, GEORGIA 31779

March 15, 1983

TO: JERRY STOLLER
HOWARD HOLTON

FROM: J. H. DOWNING

On Monday March 14th the plant was visited by a team from E. P. A. who informed me that they were going to take test borings along the drainage creek from our plant. They intend to sample water and soil borings from the plant out to about five miles.

I believe that the visit was prompted by the complaint as shown in the attached article in the Camilla Enterprise.

It will probably take several weeks for a report to follow, and as of now it is difficult to assess the nature of the report.

Sincerely,

JHD:cl

Enclosure

90999



GEOLOGIC SERVICES

Geologic & Hydrologic Studies
Well Design & Specifications

P.O. BOX 1033 • ALBANY, GEORGIA 31703 • 912/888-1714 • 912/883-4929

December 26, 1984

DEC 28 1984

Mr. Joe Downing
Pelham Phosphate Company
West Railroad Street
Pelham, Georgia 31779

Subject: Grondwater Monitoring Wells

Dear Mr. Downing:

Please find attached the boring logs and construction specifications for two monitor wells installed by Geologic Services at your plant in September of this year. I am sending this information at the request of Mr. Gainey of General Engineering Laboratories. I hope I have not caused you any problems by not sending it sooner. I have been working on the assumption that the information was available if required by the State and little benefit could be obtained by providing what wasn't required.

Again let me apologize for any inconvenience my misunderstanding may have caused you.

Sincerely yours,

Doug Wilson
Geologic Services, PG

DW/jlh

Attachments

Phosphate
Number 11-1-84

Soil Description

Red, very sandy, SILTY-CLAY
Red, very silty-clayey,
to medium SAND
Brownish brown, slightly sandy
SILTY-CLAY
Yellowish brown, very silty-
clayey, fine SAND
Boring Terminated

CONSTRUCTION SPECIFICATIONS

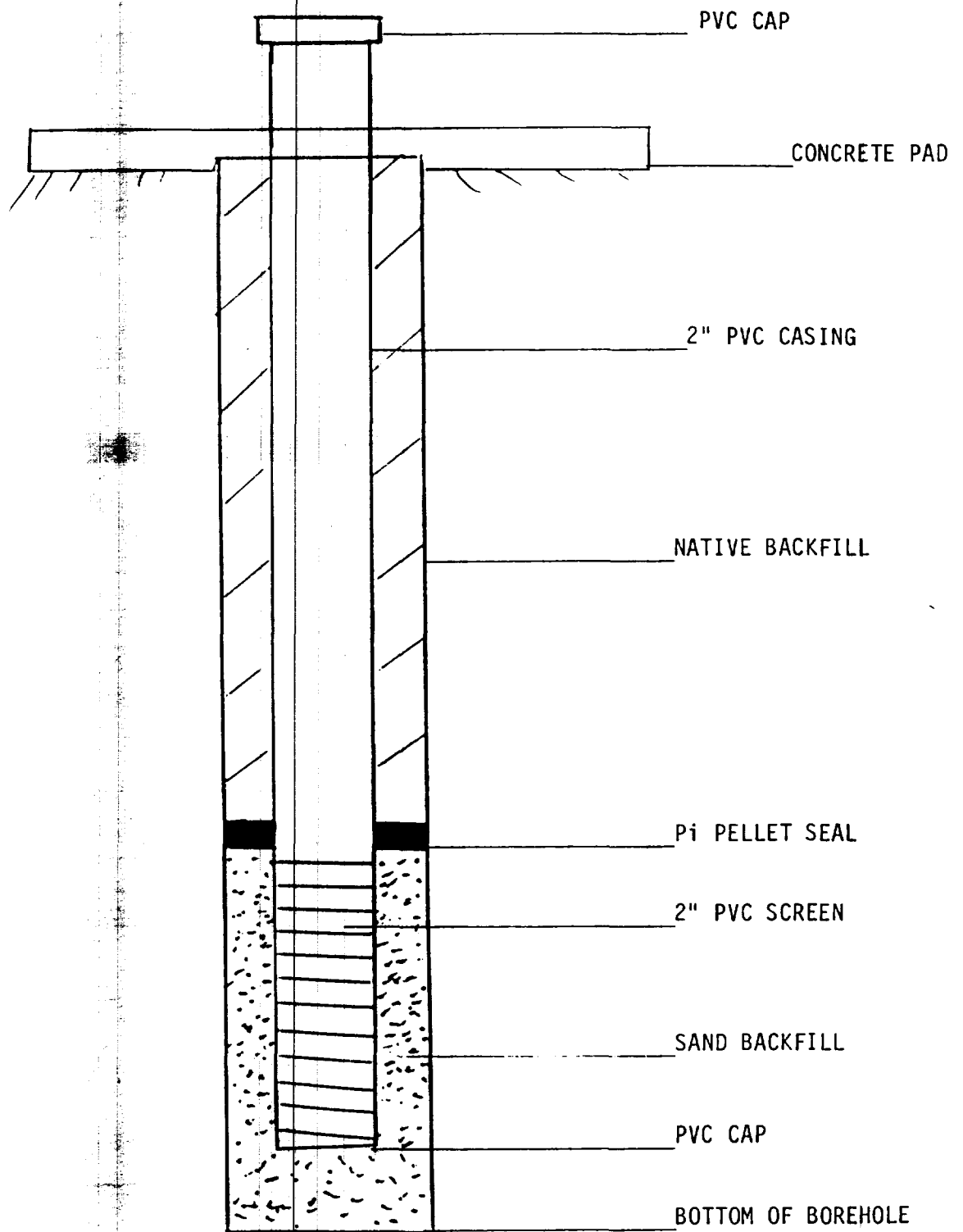
2" PVC threaded casing and
screen. Installed in 4"
borehole with sand pack
around screen. Topped by
a Pi pellet seal and native
blackfill. Well finished
with the pouring of a 2'x2'
concrete pad.
5' of screen-20' of casing.
2' of casing above groundleve

Soil Description

Red to strong brown, sandy
SILTY-CLAY; trace organics
Yellowish red, very sandy
SILTY-CLAY
Light gray and very dusky red
and yellowish brown mottled,
SILTY-CLAY
Red, very silty-clayey
Dusky red, sandy SILTY-CLAY
Boring Terminated

CONSTRUCTION SPECIFICATIONS

2" PVC threaded casing and
screen. Installed in 4"
borehole with sand pack
around screen. Topped by
a Pi pellet seal and native
blackfill. Well finished
with the pouring of a 2'x2'
concrete pad.
10' of screen-20' of casing.
2' of casing above groundleve

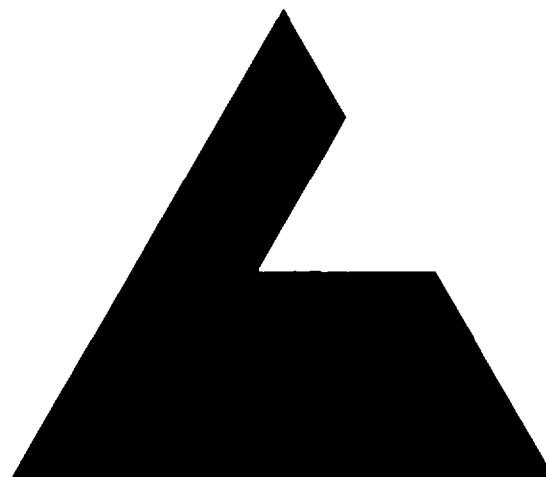


GENERALIZED CONSTRUCTION DIAGRAM

GROUND WATER MONITORING WELL

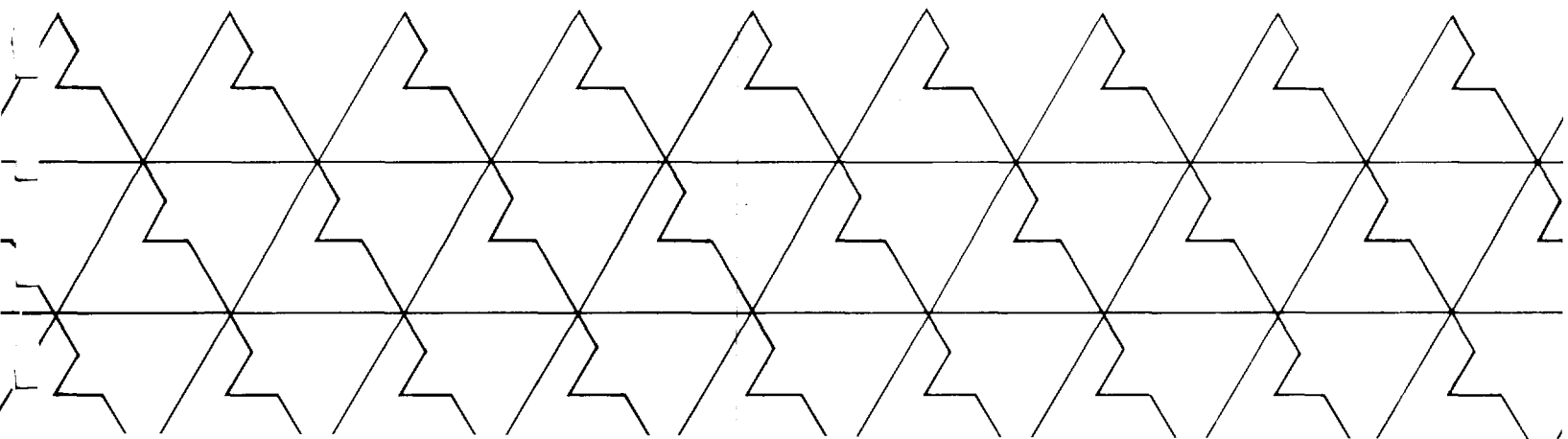
91063

OCT 24 1983



**LAW ENGINEERING
TESTING COMPANY**

REPORT OF SUBSURFACE EXPLORATION
AND WELL INSTALLATION
PELHAM PHOSPHATE COMPANY
PELHAM, GEORGIA
LETGO JOB NO. CO-818





Engineering Consulting
Chemical Analysis

GENERAL ENGINEERING LABORATORIES

1313 Ashley River Road
Charleston, S.C. 29407

P.O. Box 30712
Charleston, S.C. 29417
Phone (803) 556-8171

Client

Pelham Phosphate Company
P.O. Box 468
Pelham, GA 31779

Date

August 22, 1983

P.O. No.

Mr. Joe Downing

Requested by

CERTIFICATE OF ANALYSIS

Sample Type: Soil

Date Received: August 5, 1983

Delivered/Collected by: Pelham Phosphate Company

<u>Boring Number</u>	<u>Level, ft</u>	<u>Chromium, mg/kg</u>	<u>Cadmium, mg/K</u>	<u>Lead, mg/K</u>
HA-1	0-0.5	32	<1	<10
	1.0	22	<1	<10
	2.0	20	<1	<10
	3.0	51	<1	<10
HA-2	0-0.6	23	<1	<10
	1.0	16	<1	<10
	2.0	23	<1	<10
	3.0	17	<1	<10
HA-3	0-0.6	83	<1	<10
	1.0	91	<1	<10
	2.0	36	<1	27
	3.0	35	<1	12
HA-4	0-0.6	170	2.4	39
	1.0	19	<1	<10
	2.0	36	<1	<10
HA-5 BKG	0-0.6	50	<1	<10
	1.0	20.3	<1	<10
	2.0	22	<1	12
	3.0	20	<1	<10
HA-5	3.0	12	<1	<10

Respectfully submitted by

George C. Greene, P.E., Ph.D



Engineering Consulting
Chemical Analysis

GENERAL ENGINEERING LABORATORIES

1313 Ashley River Road
Charleston, S.C. 29407

MAR 2 1984
P.O. Box 30712
Charleston, S.C. 29417
Phone (803) 556-8171

Client

Pelham Phosphate Company
P.O. Box 468
Pelham, GA 31779

Date October 13, 1983

P.O. No.

Requested by Mr. Joe Downing

CERTIFICATE OF ANALYSIS

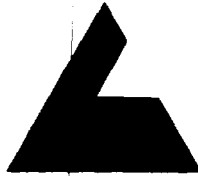
TABLE E6
FIRST QUARTER GROUNDWATER MONITORING ANALYTICAL RESULTS

Sample Type: Well Water

Date Received: September 14, 1983

Delivered/Collected by: Pelham Phosphate Company

Parameter	Well #1	Well #2	Well #3	Well #4
pH	6.59	4.35	4.21	4.20
Conductivity, umhos/cm	310	3200	2800	7800
Elevation, ft (l)	32.8	16.7	12.4	10.8
Arsenic, mg/L	<0.05	<0.05	<0.05	<0.05
Barium, mg/L	0.23	0.59	0.14	0.30
Cadmium, mg/L	<0.01	<0.01	<0.01	<0.01
Chromium, mg/L	<0.05	<0.05	<0.05	<0.05
Fluoride, mg/L	9.00	7.0	8.0	24.0
Lead, mg/L	<0.05	<0.05	<0.05	0.08
Mercury, mg/L	<0.002	<0.002	<0.002	<0.002
Nitrate, mg/L	0.35	1.0	70.0	340.0
Selenium, mg/L	<0.05	<0.05	<0.05	<0.05
Silver, mg/L	<0.05	<0.05	<0.05	<0.05
Manganese, mg/L	0.13	2.1	0.76	3.1
Iron, mg/L	3.0	0.04	0.20	0.26
Sodium, mg/L	28.9	42.3	31.4	70.2
Endrin, ug/L	<0.1	<0.1	<0.1	<0.1
Lindane, ug/L	<2	<2	<2	<2
Methoxychlor, ug/L	<10	<10	<10	<10
Toxaphene, ug/L	<2	<2	<2	<2
2,4 D, ug/L	<10	<10	<10	<10
2,4,5 TP, ug/L	<5	<5	<5	<5
Turbidity, NTU	52.0	100	74.0	130



LAW ENGINEERING TESTING COMPANY
geotechnical, environmental & construction materials consultants
209 STONERIDGE DRIVE • SUITE 201
P.O. BOX 21879 • COLUMBIA, SOUTH CAROLINA 29221-1879
(803) 779-3161

October 18, 1983

Pelham Phosphate Company
P. O. Box 468
Pelham, Georgia 31779

Attention: Mr. J. H. Downing, Vice President

Subject: Report of Subsurface Exploration and Well
Installation
Pelham Phosphate Company
Pelham, Georgia
LETCO Job No. CO-818

Gentlemen:

Law Engineering is pleased to submit this report of our exploration and well installation for the subject project. Our services were provided in accordance with our Proposal No. 1194S3 which was signed by Mr. J. H. Downing on August 2, 1983. This report includes the purpose of our services, a description of the project and the site, the regional geology, the field testing and the subsurface conditions encountered by our exploration. The appendix contains a boring location plan, subsurface profile, a discussion of ground-water flow direction, well records, and our field test procedures.

PURPOSE OF SERVICES

The purpose of our services was to examine the subsurface conditions at the site and install ground-water monitoring wells at selected locations in the upper most aquifer. The monitoring wells are to be used by others for

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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monitoring ground-water quality. We were also to collect near surface soil samples at the emission dust stockpile site. No soil or ground-water chemical analysis was performed by Law Engineering Testing Company.

PROJECT INFORMATION

Project information was provided by Mr. Downing of the Pelham Phosphate Company. Pelham Phosphate Company owns and operates a fertilizer manufacturing facility in Pelham, Georgia. The existing facility is located at the Northern end of the Town of Pelham, north of the Intersection of West Railroad Street and Mitchell Street. It is our understanding that magnesium and zinc oxide emission control dusts were used in the manufacturing of products made by Pelham Fertilizer. These emission control dusts are classified by EPA as hazardous wastes and are considered potential sources of soil and ground-water contamination. No stockpile of these dusts presently exist at the site. Presently, pecan hulls are stockpiled in the area where the emission dusts used to be stockpiled. Slag from sources outside the plant is also stockpiled near the pecan hull piles. Approximate locations of these stockpiles are shown on the Boring Location Plan. Locations were not surveyed but, estimated from observations made at the plant site.

SITE DESCRIPTION

We conducted a site reconnaissance on August 1, 1983, to observe and document surface conditions at the site. Information gathered was used to help us determine the boring/well locations.

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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The site is located near the drainage divide between the Tifton upland and the Dougherty plain (The features are further described in the site Geology section). Within the site, the general surface is flat to gently sloping to the west. The site is bound to the north by private property, to the west by a wooded area to the south by wooded area belonging to the Pelham Phosphate, and, to the east by the Seaboard Coast Line Railroad. The plant consists of manufacturing buildings, warehouse and storage areas, two small lagoons at the central area of the site and an office building.

REGIONAL GEOLOGY

The site is located in the Tifton Upland physiographic geologic division of the Coastal Plain of Georgia, very close to the solution escarpment. The solution Escarpment division is the border to Dougherty Plain division (on the northwest). The Coastal Terraces division is to the southeast of the Tifton Upland. The Dougherty Plain consists of a solution weathered surface of older sedimentary deposits covered by a residuum of weathered sedimentary deposits. The Coastal Terrace is an area of younger sedimentary deposits which were deposited during periods of fluctuating sea levels which were higher than the present sea level.

The surficial soils of the Tifton Upland and at the site are sedimentary deposits of the Hawthorne formation (5-25 million years old). Geologic literature describes the Hawthorne formation as varicolored current-bedded, iron rich sand and sandy clay. The literature also indicates the Hawthorne is a poor aquifer supplying yields of 1 to 5 gallons per minute to dug wells. The Hawthorne formation is underlain by older limestone formations, also indicated in

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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the literature as poor to fair aquifers. Limestone was not encountered during this exploration.

FIELD TESTING

Hand Auger Borings

A total of five hand auger borings were drilled at the Pelham Phosphate Co. site. Four hand auger borings (HA-1 through HA-4) were performed at the pecan hull stockpile area. According to Mr. Downing the emission dust stockpiles were located, where the pecan stockpile presently exists. One boring (HA-5) was located at a higher elevation away from the stockpile (background location). The hand auger boring locations are shown on the appended Boring Location Plan.

Three near surface soil samples were taken at each auger boring location. The visual description of the soil conditions encountered is presented on the appended Hand Auger Boring Records. The soil samples were placed in clean plastic bags, sealed, packaged and left with Pelham Fertilizer for shipment to General Engineering Laboratories for analysis. Hand auger boring procedures are included in the Appendix.

Soil Test Borings

The subsurface conditions were also explored with five soil test borings which were later converted to monitoring wells. Typically, shallow ground-water flow occurs in the direction of the general land slope. The boring/well locations were based on the topography observed in the plant area and general area where the emission dusts had been stockpiled and near the two small lagoons at the plant site. The boring locations were referenced in the field by Law

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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Engineering to site features such as property line markers, roads, fences, etc. Ground surface elevations and locations were obtained by a local surveyor and provided to us by Pelham Phosphate Company. Surveyed boring elevations are referenced to mean sea level. The boring locations are shown on the attached Boring Location Plan.

The five soil test borings were drilled to depths of 20 to 40 feet. Standard penetration tests were conducted in general accordance with ASTM D-1586 (detailed procedures presented in the Appendix). Small disturbed (split spoon) samples were obtained during this test and were visually classified by a geologist. The subsurface conditions encountered at the boring locations are shown on the attached Well Records. These Well Records represent our interpretation of the subsurface conditions based on the field logs and visual examination of field samples. The lines designating the interface between various strata on the Well Records represent the approximate interface location. In addition, the transition between strata may be gradual.

Monitoring Wells

Monitoring wells were installed in each of the five soil test borings by placing a 2-inch I.D., slotted well screen attached to a 2-inch I.D., solid, schedule 40 PVC pipe riser in the completed borehole. The well screen is a section of PVC pipe 5 feet long with .012 inch wide slots. Well graded fine to coarse sand was backfilled around the length of the well screen above any collapse of the natural formation. The backfill was placed to at least one foot above the top of the slotted screen. A bentonite seal was placed above the sand backfill and a grout mixture of cement, sand and bentonite was pumped from the top of the

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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seal to the ground surface. Well details are presented on the attached Well Records.

Ground-water levels were measured at the time of boring by Law Engineering and, on August 19, 1983, September 1, 1983 and September 20, 1983 by Pelham Phosphate Company. Ground-water levels shown on the Well Records represent the conditions only at the time of measurement and may fluctuate several feet with seasonal variations in rainfall. Normally, the highest seasonal ground-water levels occur in late winter and early spring and lowest levels in the late summer and fall. Ground-water data is mentioned on the Well Records.

SUBSURFACE CONDITIONS

Soils

The soil test borings encountered soils of the Hawthorne Formation having of a complex stratigraphy consisting of alternating layers of silty sands, clayey sands, and silty clay. Borings W-2, W-3, W-4 and W-5 encountered an upper layer of sand about 1 to 6 feet thick overlying a silty clay stratum. The silty clay stratum varies in thicknesses from about 10 to 16 feet. A clayey silty sand and clayey sand exists below the silty clay at W-3, W-4 and W-5. A silty sand layer underlies the silty clay at boring W-2 location. Boring W-1 encountered a clayey silt, below an upper one foot thick layer of sand, to a depth of 6.5 feet. Below the clayey silt layer area alternating layers of sands and clayey sands which exist to the boring termination depth of 40.0 feet. The appended drawing CO-818-2 presents a subsurface profile.

We wish to remind you that our exploration services include storing the samples collected and making them

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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available for inspection for 60 days. The samples are then discarded unless requested otherwise.

Ground-Water

The ground-water elevation measured at each boring/well location at the time of drilling ranged from 298.2 to 293.5 feet mean sea level. Ground-water elevations measured at each boring/well location by Pelham Phosphate Company and provided to us on August 19, 1983 and on September 20, 1983, ranged in depth from 298.2 to 293.5 feet mean sea level, and 298.8 to 293 feet mean sea level respectively. A table of ground-water elevations is attached.

The ground-water levels measured at the wells indicate a complex ground-water flow pattern. Normal ground-water elevation contours typically follow the topographic contours. However, well W-1, located at a higher surface elevation had a lower ground-water elevation than the wells located at lower surface elevations. Water level at the W-2 well is also several feet lower than the nearby W-3 well. Therefore, the groundwater surface does not follow the ground surface. The proximity of the site to the solution escarpment, position of the site near a surface drainage divide, and the markedly different subsurface conditions at the various well locations could all affect the groundwater conditions. As a practical result, groundwater flow conditions are not sufficiently well defined to identify a hydraulically upgradient well (background).

No supply well survey of adjacent properties has been conducted to investigate the possibility of existing high yield wells which might influence groundwater flow patterns. Additional soil test borings/wells and other tests will be

Pelham Phosphate Company
Pelham, Georgia
October 18, 1983

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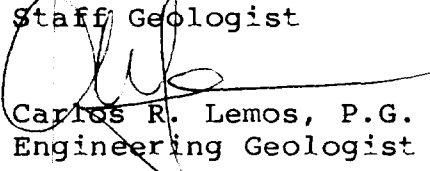
required to have a better understanding of the shallow ground-water system flow direction at the site. Based on the available data and the results of our exploration ground-water movement appears to be occurring both to the North/Northeast and to the South/Southeast.

We will be glad to discuss this report with you and answer any questions which may arise. We appreciate the opportunity to work with you and offer our services for any additional projects.

Sincerely,

LAW ENGINEERING TESTING COMPANY


Francis K. Lesesne
Staff Geologist


Carlos R. Lemos, P.G.
Engineering Geologist

Reviewed by:
Kenneth P. Akins, Jr., P.E.
Senior Engineer

FKL/CRL:ams

cc:
George Greene
General Engineering

TABLE OF GROUND WATER ELEVATIONS
 PELHAM PHOSPHATE COMPANY
 Pelham, Georgia
 LETCO JOB NO. CO-818

Boring/ Well No.	Ground Surface Elevation (Feet MSL)	Elevation of Ground Water @ Time of Drilling (Feet MSL)	Elevation of Ground Water August 19, 1983 (Feet MSL)	Elevation of Ground Water September 1, 1983 *1 (Feet MSL)	Elevation of Ground Water September 1, 1983 *2 (Feet MSL)	Elevation of Ground Water September 10, 1983 (Feet MSL)
W-1	323.1	293.5	293.5	293.5	293.6	293.0
W-2	317.5	307.1	304.6	304.9	304.7	302.9
W-3	317.0	303.9	305.6	305.7	305.7	305.4
W-4	316.0	307.9	306.5	306.5	306.6	306.2
W-5	305.5	297.7	298.2	298.2	298.2	298.8

M.S.L. - Mean Sea Level

Ground Water level measurements provided by Pelham Phosphate Company on August 19, 1983, September 1, 1983 and September 20, 1983.

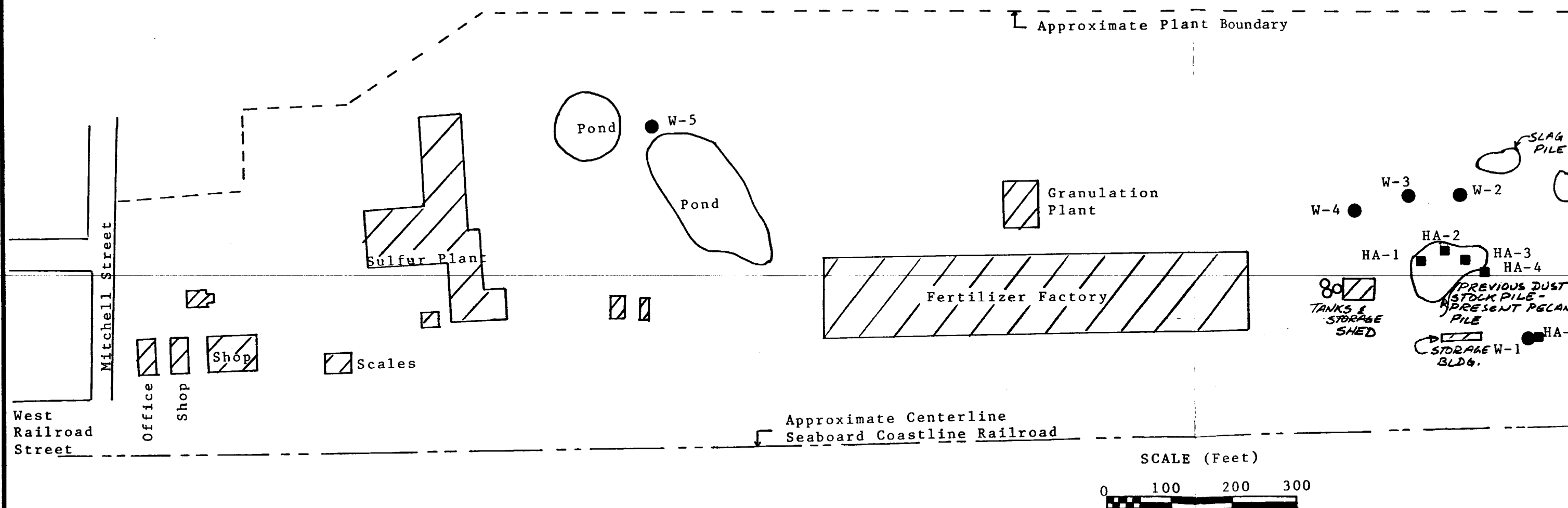
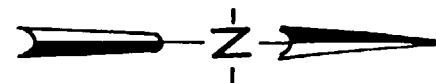
*1 Ground water level measurement made prior to sampling well.

*2 Ground water level measurement made approximately 24 hours after sampling well.


APPENDIX

HAND AUGER BORING RECORD
 PELHAM PHOSPHATE COMPANY
 Pelham, Georgia
 LETCO Job No. CO-818

Hand Auger Boring No.	Depth (Feet) From - To	Visual Soil Description
HA-1	0 - 4	Yellow and Red Fine Sandy Clayey Silt Boring Terminated @ 4 Feet Dry @ Time of Boring
HA-2	0 - 4	Yellow and Red Fine Sandy Clayey Silt Boring Terminated @ 4 Feet Dry @ Time of Boring
HA-3	0 - 4	Yellow and Red Fine Sandy Clayey Silt Boring Terminated @ 4 Feet Dry @ Time of Boring
HA-4	0 - 0.5 0.5 - 4	Brown Silty Fine Sand Yellow and Red Fine Sandy Clayey Silt Boring Terminated @ 4 Feet Dry @ Time of Boring
HA-5	0 - 0.5 0.5 - 4	Brown Silty Fine Sand with Grass roots Yellow and Red Fine Sandy Clayey Silt Boring Terminated @ 4 Feet Dry @ Time of Boring

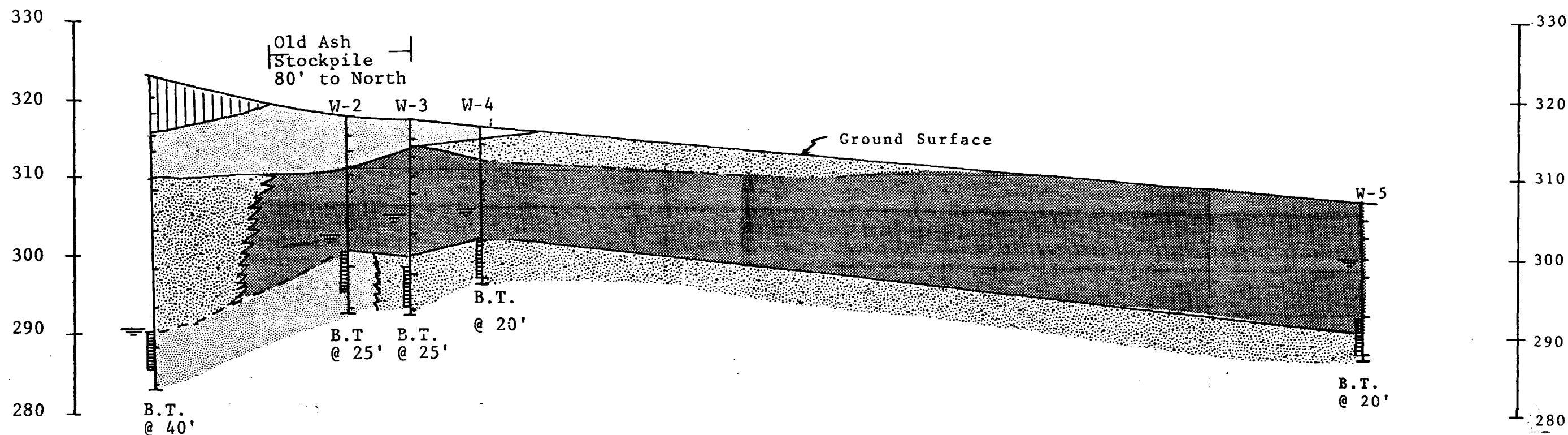


- Soil Test Boring/Monitoring Well Location
- Hand Auger Boring (HA-1 to HA-5)

	LAW ENGINEERING TESTING CO.			Boring Location Plan	
	COLUMBIA, SOUTH CAROLINA			Pelham Phosphate Company	
				Pelham, Georgia	
DWN BY		FKL	9/83	SCALE: Shown	
CKD. BY		FKL	9/83	DRAWING NO.	
APPR'D.		CRL	9/83	CO-818 -1	

ELEVATION (FEET)
MEAN SEA LEVEL

ELEVATION (FEET)
MEAN SEA LEVEL



Horizontal SCALE (Feet)
0 100 200 300

- Clayey Silt
- Silty Sand
- Clayey Silty Sand and Clayey Sand
- Silty Clay

Ground Water - 25
Level on 8/19/83

2"PVC Screen 17

B.T. - Boring Terminated at 40 Feet @ 40'

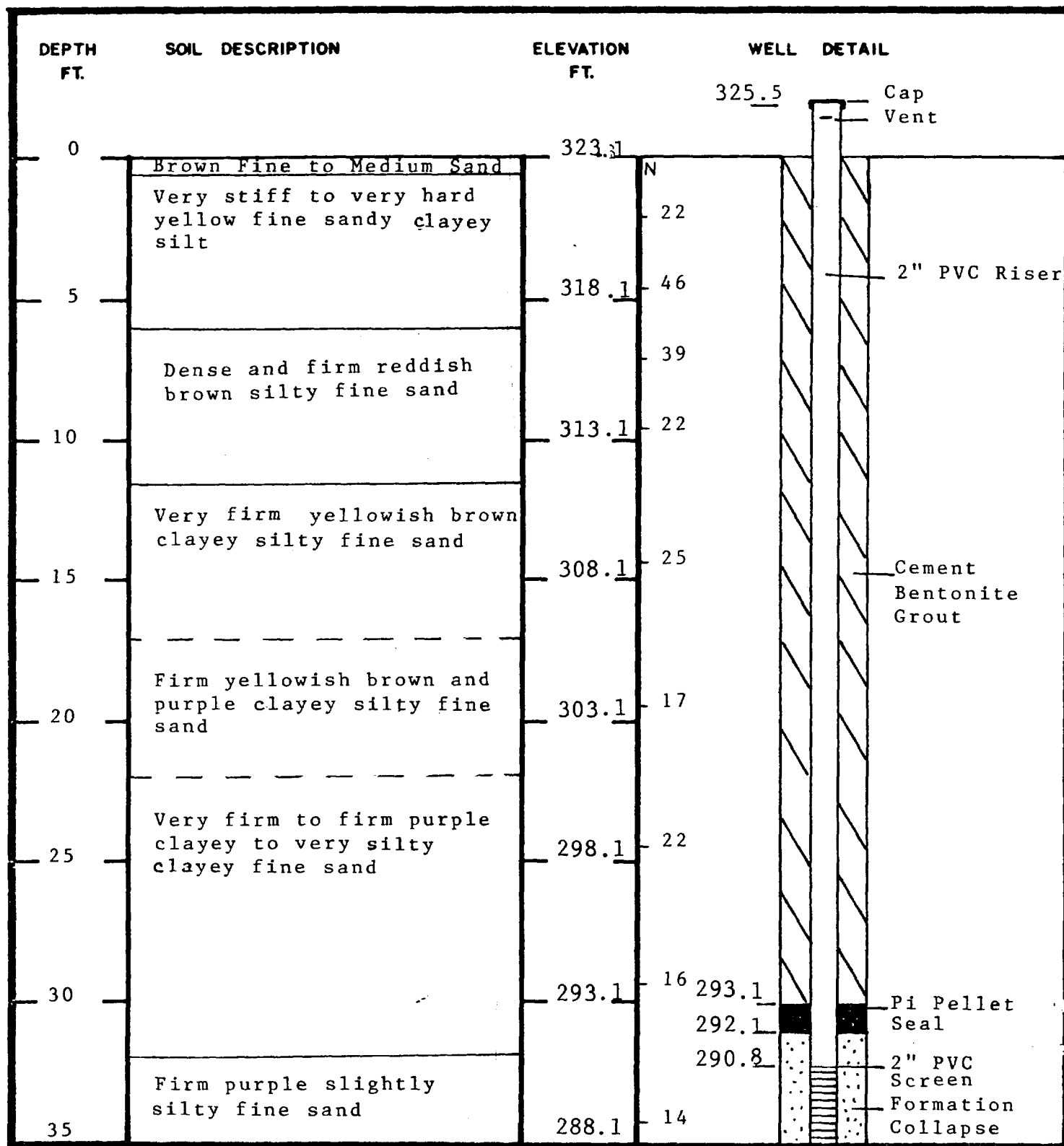


LAW ENGINEERING TESTING CO.
COLUMBIA, SOUTH CAROLINA

Pelham Phosphate Co.
Pelham, Georgia

Generalized Cross Section
Pelham Phosphate Company
Pelham, Georgia

DWN BY	FRL	9/83	SCALE: Show
CKD. BY	FRL	9/83	DRAWING NO
APPR'D.	CRL	9/83	C0-818-2



LOCATION

Pelham Phosphate Co.

WELL RECORD

DEPTH TO WATER

WELL NO.

W-1

1. TIME OF INSTALLATION

32 Feet

DATE INSTALLED

8-2-83

2. AT LEAST 24 HOURS LATER

32 Feet on 8-19-83

JOB NO.

CO-818

32.8 Feet on 9-20-83

DRILLING METHOD

Solid Stem Auger

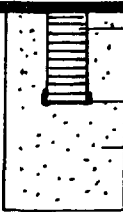
PAGE 1 OF 2

N = STANDARD PENETRATION

Wash Casing with Water

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER
FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA

DEPTH FT.	SOIL DESCRIPTION	ELEVATION FT.	WELL DETAIL
40	Firm purple slightly silty fine sand Dense purple fine sand Boring Terminated @ 40 Feet	288.1 283.1	 2" PVC Screen 285.8 Cap Formation Collapse 37 283.1 Bottom of Borehole

LOCATION

Pelham Phosphate Co.

PAGE 2 OF 2

DEPTH To WATER

32 Feet

WELL NO.

W-1

1. TIME OF INSTALLATION

32 Feet on 8-19-83

DATE INSTALLED

8-2-83

2. AT LEAST 24 HOURS LATER

32.8 Feet on 9-20-83

JOB NO.

CO-818

DRILLING METHOD

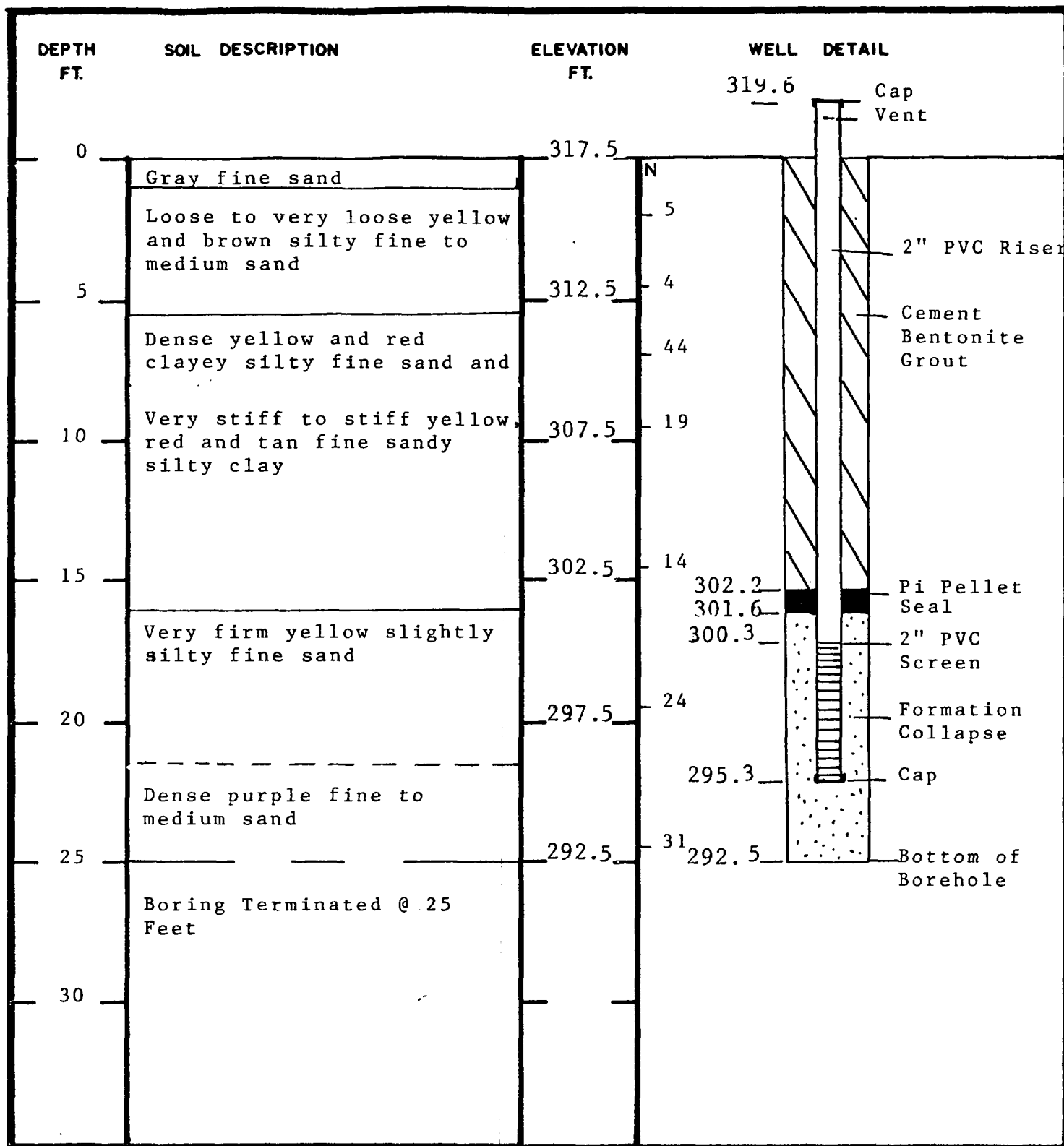
Solid Stem Auger

N = STANDARD PENETRATION

Wash Casing with Water

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER
FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA



LOCATION

DEPTH TO WATER

1. TIME OF INSTALLATION

2. AT LEAST 24 HOURS LATER

DRILLING METHOD

N = STANDARD PENETRATION

Pelham Phosphate Co.

12.5 Feet

15.0 Feet on 8-19-83

16.7 Feet on 9-20-83

Solid Stem Auger

Wash Casing with Water

WELL RECORD

WELL NO.

DATE INSTALLED

JOB NO.

PAGE 1 OF 1

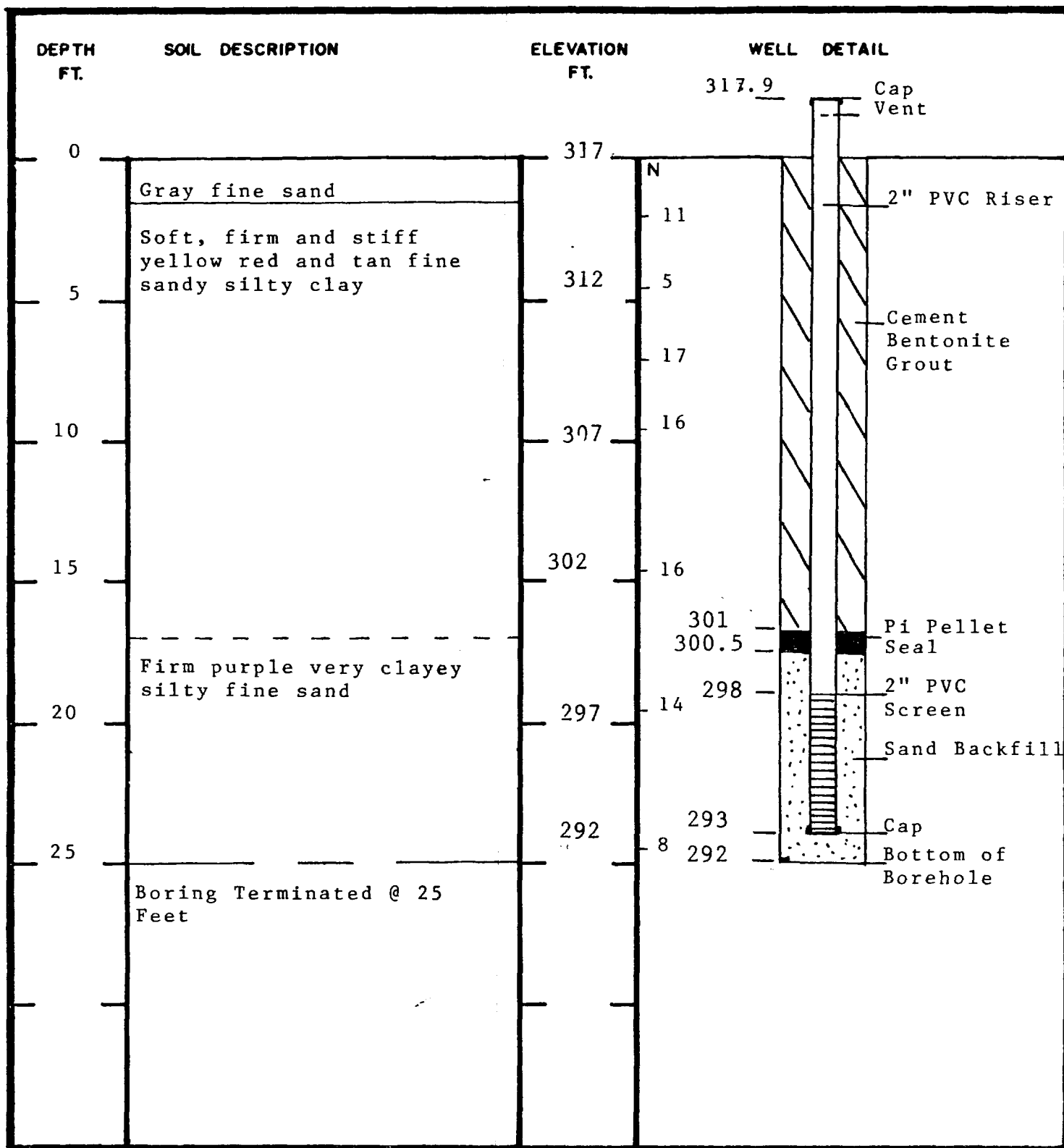
W-2

8-3-83

CO-818

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA



LOCATION

DEPTH TO WATER

1. TIME OF INSTALLATION

2. AT LEAST 24 HOURS LATER

DRILLING METHOD

N = STANDARD PENETRATION

Pelham Phosphate Co.

14 Feet

12.2 Feet on 8-19-83

12.4 Feet on 9-20-83

Solid Stem Auger

Wash Casing with Water

WELL RECORD

WELL NO.

DATE INSTALLED

JOB NO.

PAGE 1 OF 1

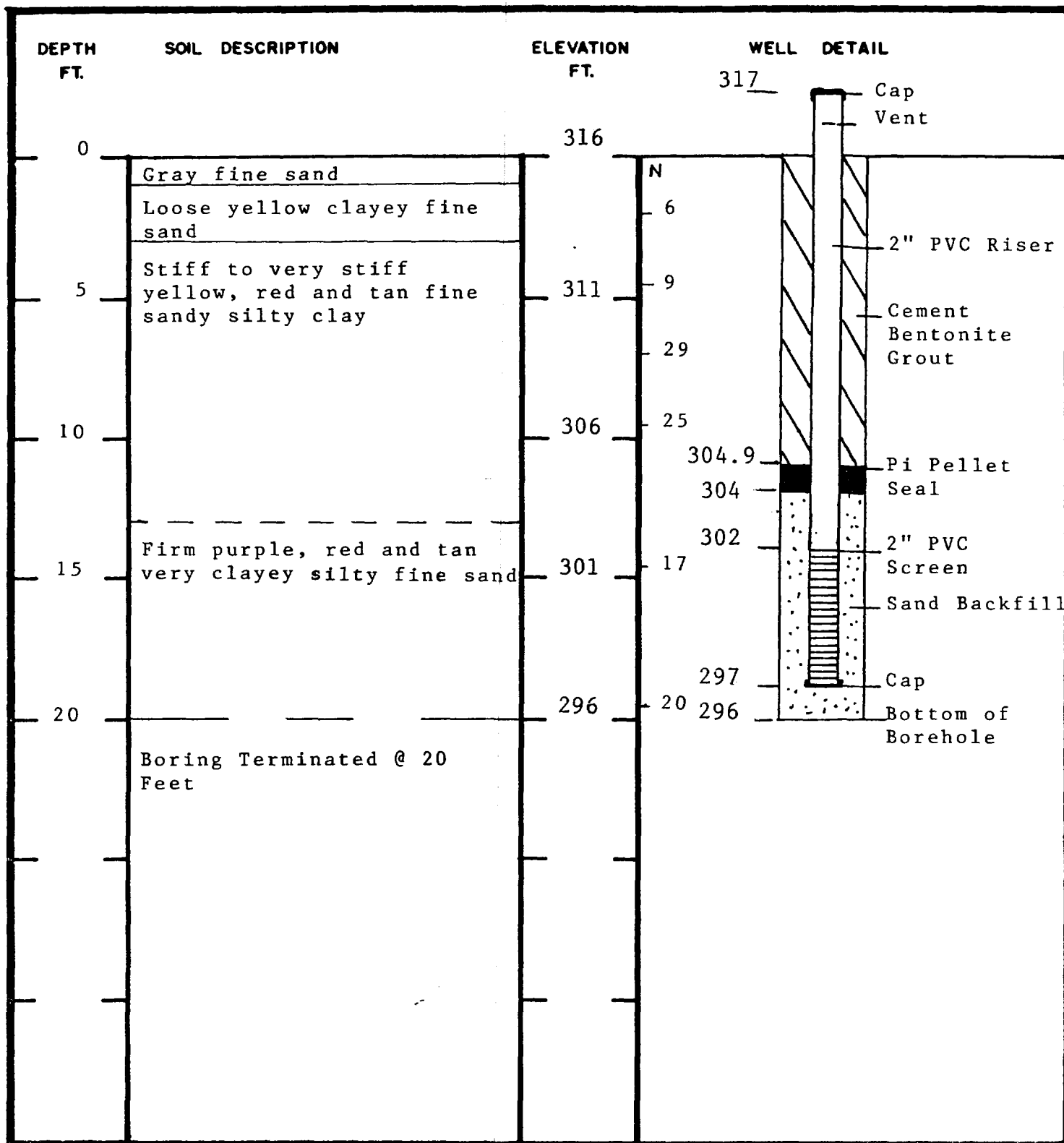
W-3

8-3-83

CO-818

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA



LOCATION

DEPTH TO WATER

1. TIME OF INSTALLATION

2. AT LEAST 24 HOURS LATER

DRILLING METHOD

N = STANDARD PENETRATION

Pelham Phosphate Co.

9.08 Feet

10.5 Feet on 8-19-83

10.8 Feet on 9-20-83

Solid Stem Auger

WELL RECORD

WELL NO.

DATE INSTALLED

JOB NO.

PAGE 1 OF 1

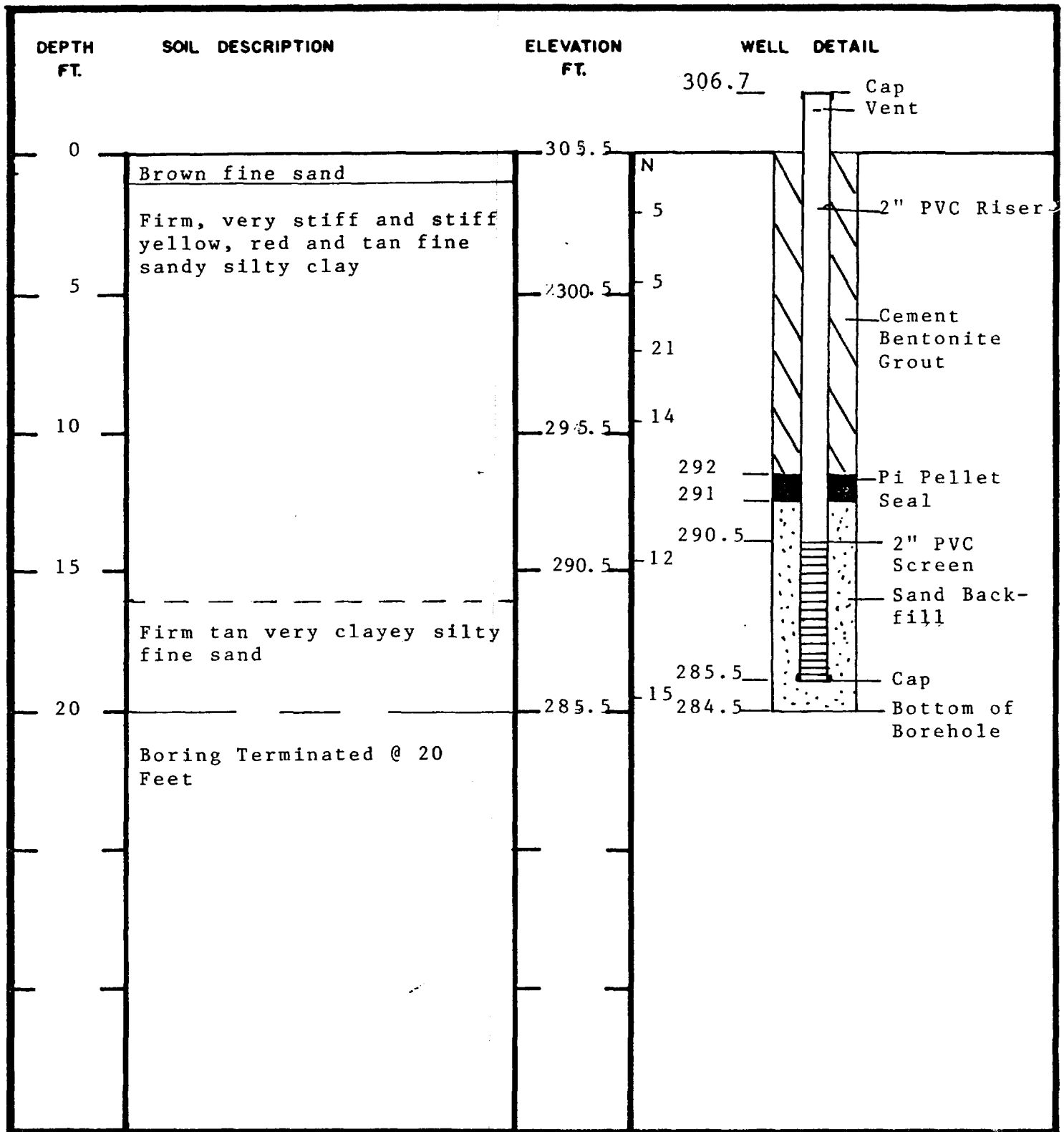
W-4

8-4-83

CO-818

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA



LOCATION

DEPTH TO WATER

1. TIME OF INSTALLATION

2. AT LEAST 24 HOURS LATER

DRILLING METHOD

N = STANDARD PENETRATION

Pelham Phosphate Co.

9 Feet

8.5 Feet on 8-19-83

7.9 Feet on 9-20-83
Solid Stem Auger

WELL RECORD

WELL NO.

DATE INSTALLED

JOB NO.

PAGE 1 OF 1

W-5

8-4-83

CO-818

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I.D. SAMPLER 1 FT.

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA

PROCEDURES

AUGER BORING

Auger borings were advanced manually by the use of a post-hole auger. The soils encountered were identified, in the field, from cuttings brought to the surface by the augering process. Representative soil samples were placed in clean plastic bags, sealed, packaged and left with Pelham Fertilizer for shipment to General Engineering Laboratories. Hand Auger Boring Records are Appended.

SOIL TEST BORING

Soil test borings were made at the site at locations shown on the attached Boring Plan. Soil sampling and penetration testing were performed in general accordance with ASTM Specification D-1586.

The borings were made by mechanically twisting a solid stem auger into the soil. At regular intervals, soil samples obtained with a standard 1.4 inch I.D., two inch O.D., split tube sampler. The sampler was first seated six inches to penetrate any loose cuttings, then driven an additional foot with blows of a 140 pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot was recorded as the "penetration resistance". The penetration resistance, when properly evaluated, is an index to the soil strength and foundation supporting capability.

Representative portions of the soil samples, thus obtained, were placed in glass jars and transported to the laboratory and visually classified by a geologist. Well Records are attached, graphically showing the soil descriptions and penetration resistances.



91293
PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF

Fertilizers, Superphosphate and Sulphur.

MAIN OFFICE - PHONE 912-294-2081
PLANT OFFICE - PHONE 912-294-8178
SALES OFFICE - PHONE 912-436-4677

POST OFFICE BOX 468
PELHAM, GEORGIA 31779

February 10, 1986

Mr. John D. Taylor, Jr., Chief
Land Protection Branch
GA. Dept. of Natural Resources
270 Washington St., S.W.
Room 825
Atlanta, GA 30334

RE: Approval of Closure Plan Outside
Waste Pile

Dear Mr. Taylor:


On February 7, 1986, I received an Ordering Guideline from GSX Services of South Carolina. I immediately contacted Farmers Land Clearing Co. to establish a time for them to begin preparation of the outside waste pile area. They will begin their work Thursday, February 13, 1986.

Willms Trucking Co., 7117 Cross County Road, N. Charleston, S.C., 29418, will be the carrier for the waste material to the Pinewood site. Willms' permit No. is SCD 073709297.

The removal of the waste material should be completed by February 17, 1986.

I am enclosing copies of correspondence received from GSX Services. I hope you will find our efforts in compliance for the closure of our outside waste pile.

Sincerely,


Clarence C. Williamson
Vice-President- Operations

CCW:mb

cc: J. Leonard Ledbetter, Commissioner E.P.D.
James H. Scarbrough, U.S.E.P.A.

Enclosures



GSX Services of South Carolina, Inc.
Route 1, Box 255
Pinewood, South Carolina 29125
(803) 452-5003

January 23, 1986

JAN 27 1986

Pelman Phosphate Co.
PO Box 468
Pelham GA 31779
Tad Williamson

Dear Mr. Williamson:

It is our pleasure to inform you that your Waste Stream(s) GSX code number(s)
***, meets the criteria for disposal at our Pinewood facility.
As per South Carolina State Law, your authorization request form was submitted to the Department of Health and Environmental Control on

12-27-85

The review period has passed and your waste stream(s) are now permitted for shipment to our facility at your convenience.

Please note that South Carolina regulations require completion of a South Carolina Hazardous Waste Manifest form for each shipment of waste product.

Sincerely,

Jerry Locklear
Customer Service Manager

JL/eks.

*** 2422-6101 soil contaminated w/flue dust residue

GENSTAR

A Genstar Waste
Services Company



GSX Corporation
Chemical Services Group
P.O. Box 210799
100 Executive Center Drive
Santee Building, Suite 128
Columbia, South Carolina 29221
(803) 798-2993

February 3, 1986

FEB 7 1986

Mr. Tad Williamson
Pelman Phosphate Company
P. O. Box 468
Pelham, GA 31779

Dear Mr. Williamson:

We are pleased to submit, for your consideration, the following Proposal:

<u>GSX CODE NO.</u>	<u>WASTE DESCRIPTION</u>	<u>DISPOSAL PRICE</u>
2422-6101	Soil contaminated w/ flue dust residue	\$.045/lb.

*Each load is subject to a \$500.00 minimum disposal charge

Proposal contingent upon receipt of South Carolina Department of Health and Environmental Control permit.

Please follow the instructions contained in the enclosed Ordering Guideline when scheduling a shipment of the above product.

This quote is valid thirty days from the date of receipt of supplemental permits.

All shipments to our site are subject to Federal and State taxes as outlined in the enclosed Ordering Guideline.

We appreciate this opportunity of quoting on your chemical waste disposal needs and look forward to servicing your requirements in the very near future.

Sincerely,

Gwendolyn Thomas/djd
Gwendolyn Thomas
Technical Sales Representative

/djd

enclosure



Engineering Consulting
Chemical Analysis

91291

GENERAL ENGINEERING LABORATORIES

1313 Ashley River Road
Charleston, S.C. 29407

P.O. Box 30712
Charleston, S.C. 29417
Phone (803) 556-8171

June 24, 1985

Mr. J. H. Downing
Pelham Phosphate Company
P.O. Box 468
Pelham, Georgia 31779

RE: Outside Waste Pile Closure Plan

Dear Joe:

Please find enclosed herewith two copies of the Cleanup and Closure Plan for the Outside Waste Pile. If no changes are required, a copy of the plan should be submitted to the Environmental Protection Division for their review and approval.

Please do not hesitate to contact me if you have any questions concerning the Closure Plan.

Yours very truly,

W. Byron Gainey
Environmental Specialist

encl

fc pelm062485

OUTSIDE WASTE PILE CLEANUP AND CLOSURE PLAN

for

**Pelham Phosphate Company
Pelham, Georgia 31779**

Prepared by

**General Engineering Laboratories
Charleston, South Carolina**

May 10, 1985

Revised June 24, 1985

INTRODUCTION

This closure plan has been prepared at the request of Pelham Phosphate Company to fulfill the requirements of Section 391-3-11-.10 of the Georgia Rules for Hazardous Waste Management (40 CFR 265 Subpart G). In addition, a closure cost estimate is included in accordance with Section 391-3-11-.05 of the Georgia Rules for Hazardous Waste Management (40 CFR 265 Subpart H). The steps proposed for closing the waste pile area are: 1) excavation of contaminated soils; 2) sampling and analysis to confirm completeness of excavation; and 3) backfilling to grade with compacted, native soils. The closure of the outside waste piles, when certified as complete, will eliminate the need for continued coverage for nonsudden accidental occurrences at Pelham Phosphate. Because this closure plan is based on a clean closure of the waste pile area, a post closure cost estimate is not included.

I. BACKGROUND

The outside waste pile area is located at the northern end of the plant site. The waste pile area was used to store shipments of Magnesium and Zinc Oxide Flue Dusts during the period from 1975 to 1981. The Magnesium Oxide failed the EP Toxicity Test for Chromium. The Zinc Oxide failed the EP Toxicity Test for Cadmium and Lead. Both of these materials were therefore listed as Hazardous Wastes during the active life of the storage pile area. The Magnesium Oxide was delisted as a Hazardous Waste in 1984. Since 1981 all flue dust shipments have been stored inside the main storage building on a concrete pad. All of the materials remaining in the outside waste piles when the area was deactivated were removed and processed into finished product. Currently, the area where the waste piles were located is used to store pecan shells.

II. SAMPLING & ANALYSIS

Collection of Soil Samples:

Initial soil borings were taken and returned to the laboratory for analysis on August 5, 1983. The results of these analyses are shown in Table 1. Based on these initial results, a second set of borings was made on October 19, 1984 at locations selected to define the areas of high levels of contaminants. The analytical results of these boring samples are also shown in Table 1. A third set of samples was collected on March 29, 1985 to further define the area subject to contamination. These results are also included in Table 1. Sample locations are shown in Figure 1. In all cases the samples were collected using a hand auger and shovel, and the depth of collection for the samples was determined relative to the surface. This closure plan is based on the analytical results included in Table 1.

Analysis of Soil Samples:

As indicated in Table 1, each sample was analyzed for Cadmium, Chromium, and Lead. The metals were selected for analysis because they were the contaminants which were considered to be present in the flue dusts. Note that the data presented in Table 1 is indicative of the total concentrations of the contaminant in the sample, not the EP Toxic concentrations. The maximum EP Toxic concentration possible can be estimated by dividing the total concentration by 20. It can be seen from this data that the maximum EP Toxic concentrations would, in all cases, be well below the allowable limits. Thus, this data indicates that none of the soils remaining in the area would be classified as Hazardous Wastes. Furthermore, comparison of this data with the data from the background boring, HA-5, indicates that clean closure of this area is feasible.

III. CLOSURE ACTIVITIES

The closure activities detailed below follow the general clean closure plan which is presented in Section I-2d(3)(a) of the Part B Application for Pelham Phosphate Company. In the unlikely event that subsequent analyses, taken during the closure activities, indicate that clean closure is not possible, a revised closure plan will be submitted. The revised plan will outline steps to be taken to complete the closure. This plan will include post closure activities and a post closure cost estimate.

Although the test results, as noted above, that the contaminated soils do not possess hazardous waste characteristics, the state of Georgia requires that they be handled as a hazardous waste because they have been contaminated by a listed hazardous waste. Prior to initiation of excavation activities, approval for disposal of the contaminated soils in the GSX Chemical Services Hazardous Waste Landfill in Pinewood, SC will be obtained.

Excavation of Soil:

Since there are no wastes present in concentrations which are hazardous, the excavation and cleanup will not require contracting a firm specializing in hazardous waste cleanup activities. The soil in the waste pile area will be excavated by Farmers Land Clearing Company of Pelham, Georgia. The excavation will be accomplished using a front end loader and a bulldozer. Excavation near Monitoring Well W-5 will be done with shovels. This will minimize the possibility of damaging the well. The area to be excavated is 50 feet in diameter. The center of the excavation is located at Monitoring Well W-5. Based on the analytical results shown in Table 1 the excavation depth has been determined to be approximately one foot. While this depth is greater than required in some areas, it will insure that all contaminated soils are removed and that the area is restored to background conditions. The estimated amount of soil which will be removed,

based on this excavation area and depth, is approximately 75 cubic yards. The soil will be transported to the hazardous waste landfill by Willms Trucking Company.

Sampling of Excavated Area:

Representative samples of the soil which remains in place will be taken when the excavation activities have been completed. The samples will be collected by Pelham Phosphate personnel and the analyses will be performed by General Engineering Laboratories. Five random samples will be collected from the surface of the excavated area and analyzed for Cadmium, Chromium, and Lead. The average and standard deviation will be determined and compared with the background results obtained from the August 5, 1983 samples from HA-5 to confirm that all contaminated soils have been removed. Complete removal of all contaminated soils will be indicated if none of the individual data is greater than two standard deviations above the established background. If any of the data exceeds the background value by more than two standard deviations, additional soils will be removed until this criteria is satisfied.

Backfill:

When complete removal of all contaminated soils has been confirmed by laboratory analyses, the area will be backfilled to grade with clean, fill dirt from a 240 acre tract of land owned by Pelham Phosphate. The backfill will be implaced in lifts not exceeding six inches, and compacted using the front end loader. The amount of backfill that will be required is estimated to be 75 cubic yards.

Decontamination:

All protective equipment worn by personnel during the excavation activities will be considered contaminated and disposed of with the contaminated soils. The excavation and transporting equipment will be cleaned of any soil with brushes, and this soil will be disposed of with the excavated soil.

IV. COST ESTIMATE and SCHEDULE

The Cost Estimate for this Closure Plan is included in Attachment 1. The assumptions and costs for individual items are also included with the estimate. A schedule of intervening closure activities based on this Closure Plan is included in Attachment 3.

V. FINANCIAL ASSURANCE

An Irrevocable Letter of Credit to the amount of \$133,000 has been established with the Trust Company Bank of South Georgia to ensure the estimated cost of the Contingent Closure and Post

Closure Plan that is described in the Part B Application for Pelham Phosphate Company. The original Letter of Credit and the required attachments is on file with the EPD. Copies of these documents are enclosed herewith in Attachment 2. The Letter of Credit has been established to provide funds for a Standby Trust. The Standby Trust can be activated at the discretion of the Director of the Georgia Department of Natural Resources, Environmental Protection Division to ensure that the closure activities can be completed in accordance with the approved Closure Plan. Upon certification of closure of the Outside Waste Pile, the Letter of Credit and the attachments will be updated to reflect the removal of the the cost for closure of the Outside Waste Pile.

VI. CERTIFICATION

Upon completion of closure of the outside waste pile, Pelham Phosphate and General Engineering Laboratories will submit certification to the Environmental Protection Division stating that the facility has been closed out in accordance with the EPD approved closure plan.

Prepared and Submitted by



George C. Greene, P.E., Ph. D.

SC Registration No. 9103

Vice President

General Engineering Laboratories

TABLE 1
ANALYTICAL RESULTS
FOR
SOIL SAMPLES

<u>Sample ID</u>	<u>Date</u>	<u>Depth. ft</u>	<u>Chromium. mg/Kg</u>	<u>Cadmium. mg/Kg</u>	<u>Lead. mg/Kg</u>
HA-1	08/05/83	0-0.5	32	<1.0	<10
		1.0	22	<1.0	<10
		2.0	20	<1.0	<10
		3.0	51	<1.0	<10
HA-2	08/05/83	0-0.5	23	<1.0	<10
		1.0	16	<1.0	<10
		2.0	23	<1.0	<10
		3.0	17	<1.0	<10
HA-3	08/05/83	0-0.5	83	<1.0	<10
		1.0	91	<1.0	<10
		2.0	36	<1.0	27
		3.0	35	<1.0	12
HA-4	08/05/83	0-0.5	170	2.4	39
		1.0	19	<1.0	<10
		2.0	36	<1.0	<10
HA-5	08/05/83	0-0.5	50	<1.0	<10
		1.0	20	<1.0	<10
		2.0	22	<1.0	12
		3.0	20	<1.0	<10
HA-6	10/22/84	0-0.5	<1	<1.0	<10
		1.0	<1	<1.0	<10
		2.0	10	<1.0	<10
HA-7	10/22/84	0-0.5	22	<1.0	<10
		1.0	<1	<1.0	<10
		2.0	8	<1.0	<10
		3.0	16	<1.0	<10
HA-8	02/18/85	2.0	20	<1.0	<10
HA-9	03/29/85	0-0.5	17	<1.0	<10
HA-10	03/29/85	0-0.5	14	<1.0	<10
HA-11	03/29/85	0-0.5	17	<1.0	<10
HA-12	03/29/85	0-0.5	15	<1.0	<10
HA-13	03/29/85	0-0.5	14	<1.0	<10
HA-14	03/29/85	0-0.5	19	<1.0	<10

table1

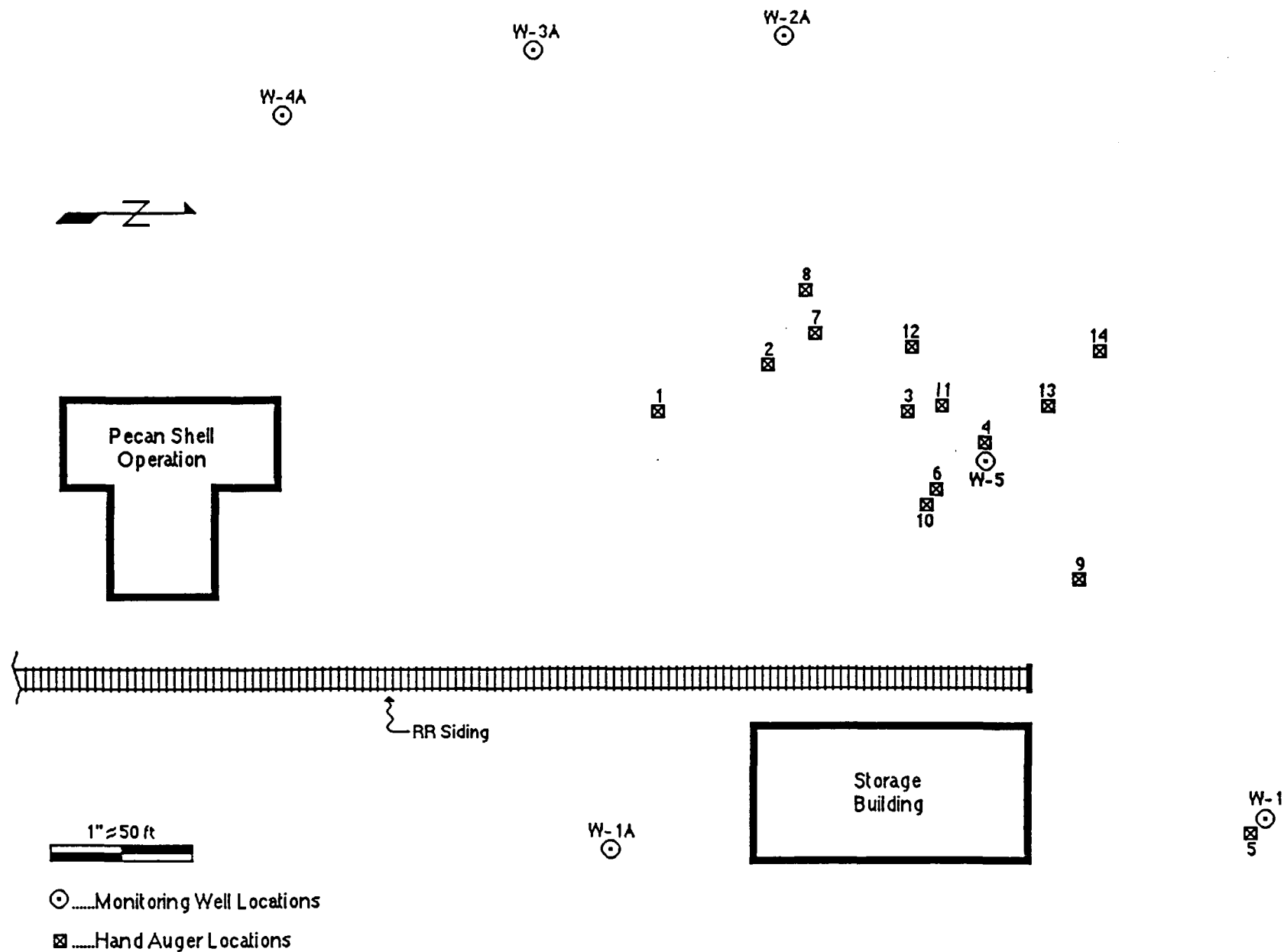


FIGURE 1

SKETCH of OUTSIDE WASTE PILE AREA
PELHAM PHOSPHATE COMPANY

ATTACHMENT 1

Assumptions for Closure Cost Estimate

General

- All soil removed will be considered as contaminated and disposed of in an approved Hazardous Waste Landfill.
- Excavation of the contaminated soil and the backfill will be handled by a local contractor.
- Excavated soil will be transported to the hazardous waste landfill by a permitted transporter.
- Transportation of the backfill will be provided by the local contractor
- One load equals 18 cubic yards of material.
- One cubic yard of soil equals 2,000 pounds

Volumes

- | | |
|---------------------|----------------|
| • Hazardous Soil | 0 cubic yards |
| • Contaminated Soil | 75 cubic yards |
| • Backfill | 75 cubic yards |

Costs

- | | |
|---|----------------------|
| • Excavation & Disposal | |
| Labor & Equipment for Excavation | \$ 2.85 / cubic yard |
| Transportation to HW landfill | \$ 1,310 / load |
| Disposal Fee | \$ 0.04 / lb |
| SC Hazardous Waste Disposal Tax | \$ 18.00 / ton |
| • Backfilling | |
| Labor & Equipment (excluding backfill cost) | \$ 2.85 / cubic yard |
| • Materials | |
| Backfill | \$ 0.40 / cubic yard |
| • Engineering Consulting | \$ 60.00 / hour |
| • Laboratory Analyses | |
| Cd, Cr, and Pb (total concentrations) | \$ 80.00 / set |

ATTACHMENT 1 (continued)

Cost Estimate

<u>ACTIVITY</u>		<u>Amount</u>
1. Excavate contaminated soils and		
Labor & Equipment:	75 yd ³ x \$ 2.85/ yd ³	\$ 215
2. Sample excavated soil and prepare Authorization Request Form		\$ 350
3. Transport excavated soil to secure landfill		
Transportation	5 loads x \$1,310 / load	\$ 6,550
Disposal Fee	150,000 lbs x \$ 0.04 / lb	\$ 6,000
SC Hazardous Waste Tax	\$ 18 / ton	\$ 1,350
4. Sample and Analyze subsoils to confirm removal of contamination		
Analyses:	5 sets x \$ 80 / set	\$ 400
5. Final Cover Installation		
Backfill:	75 yd ³ x \$ 0.40 / yd ³	\$ 30
Labor & Equipment:	75 yd ³ x \$ 2.85 / yd ³	\$ 215
6. Certification of Closure		
Engineering:	8 hours x \$ 60 / hour	\$ <u>480</u>
	Estimated Closure Costs	\$ 15,590
	Contingencies (10%)	\$ <u>1,590</u>
	Subtotal	\$ 17,180
In the event that Pelham Phosphate Company is unable to complete the closure, EPD will have to select a party to take over the task of administrating the closure. An additional 25% is included to provide funding for this possibility.		\$ <u>4,295</u>
	Total Estimated Closure Costs	\$ 21,475



PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF

Fertilizers, Superphosphate and Sulphur.

MAIN OFFICE - PHONE 912-294-2081

PLANT OFFICE - PHONE 912-294-8178

SALES OFFICE - PHONE 912-436-4677

POST OFFICE BOX 468

PELHAM, GEORGIA 31779

Mr. J. Leonard Ledbetter
Division Director
Department of Natural Resources
Environmental Protection Division
270 Washington Street, S.W.
Atlanta, Georgia 30334

Dear Mr. Ledbetter:

Please find attached herewith our Letter of Credit No. 231 issued by Trust Company Bank of South Georgia on November 7, 1984 in the amount of One Hundred and Thirty-three Thousand and no/100 U.S. Dollars (\$133,000.).

This Letter of Credit has been obtained in compliance with the financial responsibility requirements to cover waste closure and post closure care costs for Pelham Phosphate Company (EPA ID No. GAD0003300092). P.O. Box 468, Pelham, Georgia 31779.

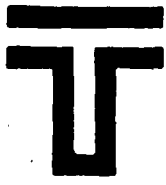
Yours very truly,

James L. Davis, Jr.
Vice-Pres. & Gen. Mgr.

JLD:mb

ATTACHMENT 2

Irrevocable Letter of Credit



**Trust Company Bank
of South Georgia, N.A.**

November 7, 1984

J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
270 Washington Street S. W.
Atlanta, GA 30304

Dear Sir:

We hereby establish our Irrevocable Standby Letter of Credit No. 231 in your favor, at the request and for the account of Pelham Phosphate Co., Pelham, Georgia up to the aggregate amount of One Hundred Thirty-Three Thousand and no/100 U.S. Dollars \$133,000.00 available upon presentation of:

- (1) Your sight draft, bearing reference to this letter of credit No. 231 and
- (2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Georgia Hazardous Waste Management Act, O.C.G.A. 12-8-60, et seq."

This letter of credit is effective as of November 7, 1984 and shall expire on November 7, 1985 but such expiration date shall be automatically extended for a period of one year to November 7, 1986 and on each successive expiration date, unless at least 120 days before the current expiration date, we notify both you at the above address and Pelham Phosphate Co. by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and Pelham Phosphate Co., as shown on the signed return receipts.

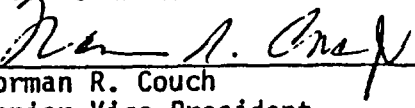
Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of Pelham Phosphate Co. in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in paragraph 391-3-11.05 of the Rules of the Georgia Department of Natural Resources, Environmental Protection Division.

This credit is subject to the "Uniform Customs and Practice for Documentary Credit (1974 Revision,) International Chamber of Commerce Pub. 290."

Very truly yours,

TRUST COMPANY BANK OF SOUTH GEORGIA

By: 
Norman R. Couch
Senior Vice President

Attest: 
R. Perry Saville
Assistant Vice President

Trust Fund for Closure and/or Post-closure Care

Trust Agreement

Trust Agreement, the "Agreement", entered into as of 11-7-84 by and between Pelham Phosphate Company, a Georgia corporation, the "Grantor", and The Trust Company Bank of South Georgia, a national bank, the "Trustee".

Whereas, the Department of Natural Resources, Environmental Protection Division, "EPD", an agency of the State of Georgia, has established certain regulations applicable to the Grantor, requiring the owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for the closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions.

As used in this Agreement:

- (a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.
- (b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.
- (c) The term "EPD" means the Environmental Protection Division of the Department of Natural Resources, State of Georgia.
- (d) The term "EPD Director" means the Director of the Environmental Protection Division of the Department of Natural Resources, State of Georgia.

Section 2. Identification of Facilities and Cost Estimates.

This agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund.

The Grantor and the Trustee hereby establish a trust fund, the "Fund", for the benefit of the State of Georgia. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPD.

Section 4. Payment for Closure and Post-Closure Care.

The Trustee shall make payments from the Fund as the EPD Director shall direct, in writing, to

provide for the payment of the costs of the closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPD Director from the Fund for the closure and post-closure expenditures in such amounts as the EPD Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund.

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management.

The Trustee shall invest and re-invest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the trustee, to the extent insured by the agency of the Federal or State government; and
- (c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment.

The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee.

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses.

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with administration of this Trust, including fees for legal services rendered by the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation.

The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the EPD Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of the establishment of the Fund. The failure of the Grantor to object in writing to the Trustee 90 days after the statement has been furnished to the Grantor and the EPD Director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel.

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of the Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation.

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee.

The trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. This successor trustee shall have the same powers and duties as those

conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the fund and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPD Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee.

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPD Director to the Trustee shall be in writing, signed by the EPD Director or his designee, and the Trustee shall act and be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPD hereunder has occurred. The Trustee shall have no duty to act in absence of such orders, requests, and instructions from the Grantor and/or EPD, except as provided for herein.

Section 15. Notice of Nonpayment.

The Trustee shall notify the Grantor and the EPD Director by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement.

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the EPD Director, or by the Trustee and the EPD Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination.

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPD Director or by the Trustee and the EPD Director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification.

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPD Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in this defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law.

This Agreement shall be administered, construed, and enforced according to the laws of the State of Georgia.

Section 20. Interpretation.

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

Section 21. Addresses.

Any notice to the parties to this Agreement or to the EPD Director required by this Agreement shall be deemed sufficient if sent by certified U.S. Mail to the appropriate party or to the EPD Director at the following address:

Grantor: Pelham Phosphate Co.

Address: Pelham, Ga. 31779

Trustee: Trust Company Bank of South Georgia

Address: P.O. Box 1247
Albany, Georgia 31703

EPD Director: J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
270 Washington Street, S.W.
Atlanta, Georgia 30334

It shall be the responsibility of each party to notify the other parties in writing of any change to its address stated above.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in paragraph 391-3-11-.05 of the Rules of the Georgia Department of Natural Resources, Environmental Protection Division.

James J. Davis, Jr.
(Signature of Grantor)

Vice-President & General Manager
(Title)

Attest: Jacquelyn Shelton
(Title) Secretary

(Seal)



TRUST COMPANY BANK OF SOUTH GEORGIA

Norman R. Couch

Norman R. Couch, Sr.
Senior Vice President

(Signature of Trustee)

Attest:

R. Perry Saville

(Title) Assistant Vice President

(Seal)

Certificate of Acknowledgement

State of Georgia
County of Mitchell

On this _____, before me personally came _____ to me known, who, being by me duly sworn, did depose and say that she/he resides at _____, that she/he is _____ of Pelham Phosphate Company, the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

Charles Moody

(Notary Public)

My commission expires on My Commission Expires February 17, 1986.

fc TRUST FUND.m1

SCHEDULE A**CLOSURE COST ESTIMATE: SUMMARY**

AREA	Closure Cost
Outside Waste Piles	\$18,801
Inside Waste Piles	\$5,805
Total Costs	\$24,606
(Round to nearest thousand dollars)	
Total estimated cost to close all hazardous waste activities	\$25,000

**Total Cost Estimate for Closure and Post Closure Care, assuming the
Outside Waste Pile Area is closed as a disposal facility.**

Closure	\$25,000
Post Closure Care	\$108,000
TOTAL	\$133,000



PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF

Fertilizers, Superphosphate and Sulphur.

MAIN OFFICE - PHONE 912-294-2081
PLANT OFFICE - PHONE 912-294-8178
SALES OFFICE - PHONE 912-436-4677

POST OFFICE BOX 468
PELHAM, GEORGIA 31779

SCHEDULE B

DESCRIPTION OF TRUST AGREEMENT FOR

PELHAM PHOSPHATE COMPANY
P.O. BOX 468
PELHAM, GEORGIA 31779
EPA ID No. GAD003300092

This Unfunded Standby Trust Fund is supported by Letter of Credit No. 231 issued by Trust Company Bank of South Georgia on November 7, 1984 in the amount of One Hundred and Thirty-three Thousand and no.100 U.S. Dollars (\$133,000.).

This Trust Fund can be called upon at the discretion of the Director of the Environmental Protection Division of the Georgia Department of Natural Resources to insure financial coverage for closure and post closure care costs of hazardous waste activities at Pelham Phosphate Company.



PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF

Fertilizers, Superphosphate and Sulphur.

MAIN OFFICE - PHONE 912-294-2081
PLANT OFFICE - PHONE 912-294-8178
SALES OFFICE - PHONE 912-436-4677

POST OFFICE BOX 468
PELHAM, GEORGIA 31779

EXHIBIT A

AUTHORIZED REPRESENTATIVES
OF
PELHAM PHOSPHATE COMPANY
P.O. BOX 468
PELHAM, GEORGIA 31779
EPA ID No. GAD003300092

The following individuals are authorized to issue all orders, request, and instructions from Pelham Phosphate Company to Trust Company Bank of South Georgia in matters pertaining to this Trust Agreement:

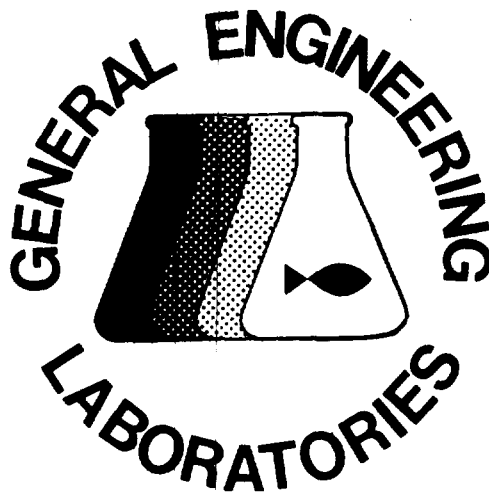
*Jerry Stoller, President
Howard Holton, Vice-President
James L. Davis, Jr., Vice-President & Gen. Manager*

91295

INSIDE WASTE PILE CLOSURE PLAN

for

Pelham Phosphate Company
GAD 003 300 092
Mitchell County
Pelham, Georgia



Submitted to:

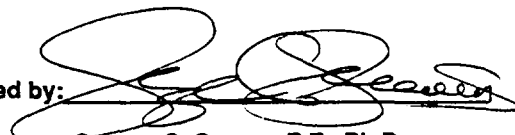
Pelham Phosphate Company
P.O. Box 468
Pelham, Georgia 31779

Release Date: October 24, 1986

Submitted by:

General Engineering Laboratories
1313 Ashley River Road
Charleston, South Carolina 29407

Released by:


George C. Greene, P.E., Ph.D.
Vice President

INTRODUCTION

This closure plan has been prepared at the request of Pelham Phosphate Company to fulfill the requirements of Section 391-3-11-.10 of the Georgia Rules for Hazardous Waste Management (40 CFR 265 Subpart G). In addition, a closure cost estimate is included in accordance with Section 391-3-11-.05 of the Georgia Rules for Hazardous Waste Management (40 CFR 265 Subpart H). The steps proposed for closing the inside waste pile area are: 1) wash with scrubbing to decontaminate waste pile holding area; 2) sample and analyze to confirm completeness of decontamination; and 3) process collected wash water. The closure of the inside waste pile, when certified as complete, will eliminate the need for a Hazardous Waste Permit Application at Pelham Phosphate Company. Because this waste pile area is on an impermeable base with run-on and run-off protection, post closure care is not necessary and therefore not addressed.

I. BACKGROUND

The Inside Waste Pile area is a 14 foot by 18 foot area located in the Main Storage Building. The area has a concrete floor and is fully protected from run-on and run-off. The waste pile area was used to store shipments of Magnesium and Zinc Oxide Flue Dusts from 1981 to 1984. The Magnesium Oxide Flue Dust failed the EP Toxicity Test for Chromium. The Zinc Oxide Flue Dust failed the EP Toxicity Test for Cadmium and Lead. These materials have been listed as hazardous wastes, however, the Magnesium Oxide Flue Dust was delisted as a hazardous waste in 1984.

II. CLOSURE ACTIVITIES

The closure activities for the Inside Waste Pile will follow the general clean closure plan which is presented in Section I-2d(3)(b) of the Part B Application for Pelham Phosphate Company. In the unlikely event that subsequent analyses, performed during the closure

activities, indicate that clean closure is not possible, a revised closure plan will be submitted. The revised plan, if required would outline the steps necessary to complete the closure. The details of each step required to close the Inside Waste Pile are summarized below:

Removal of Contamination

All material has been removed from the Inside Waste Pile, and the area has been swept of any free material.

The concrete floor of the waste pile will be washed with cold water, and scrubbed with a stiff brush to remove any remaining residues. The wash water will be collected in 55 gallon drums. It is estimated that 50 to 100 gallons of wash water will be generated from the cleaning step. This water will be returned to the Fertilizer Factory, and used as makeup water in the fertilizer process. Any residue in this water is converted into finished product, and there is no need to treat the water further.

Sampling of Washed Area

To determine the effectiveness of decontamination of the area, random sampling will be performed. The samples will be collected by Pelham Phosphate personnel and the analyses will be performed by General Engineering Laboratories. A 20 x 20 centimeter area will be marked on the floor for each sample. Then a hammer will be used to tap the surface of the concrete in the square. The chips and dust will be collected and placed in a plastic bag. A total of five samples will be collected from random locations in the 14 x 18 foot area. The samples will be analyzed for Cadmium, Chromium, and Lead. Removal of all contamination will be indicated if none of the individual results is greater than two standard deviations above the established background. If any of the data exceeds the background value by more than two standard deviations, additional washes will be performed until this criteria is satisfied.

Background data will be generated by washing the concrete floor of an area at the opposite end of the Main Storage Building. Five samples will be collected from this washed area using the method described above, and analyzed for Cadmium, Chromium, and Lead. The results will be used to establish a mean and standard deviation for each of the contaminants.

Decontamination

The brushes used in the cleanup will be cleaned of any contamination with a cold water wash. This water will be collected with the wash water from the floor, and handled as described above.

III. COST ESTIMATE and SCHEDULE

The Cost Estimate for this Closure Plan is included in Appendix I. The assumptions and costs for individual items are also included with the estimate. A schedule of intervening closure activities based on this Closure Plan is included in Appendix II.

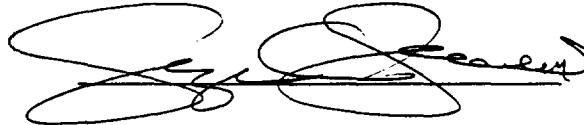
V. FINANCIAL ASSURANCE

An Irrevocable Letter of Credit in the amount of \$133,000 has been established with the Trust Company Bank of South Georgia to cover the estimated cost of the Contingent Closure and Post Closure Plans described in the Part B Application for Pelham Phosphate Company. The original Letter of Credit and the required attachments are on file with the EPD. Copies of these documents are enclosed herewith as Appendix III. The Letter of Credit has been established to provide funds for a Standby Trust. The Standby Trust can be activated at the discretion of the Director of the Georgia Department of Natural Resources, Environmental Protection Division to ensure that the closure activities will be completed in accordance with the approved Closure Plan. Upon certification of closure of the Inside Waste Pile, the Letter of Credit and the attachments will be updated to reflect the cost for closure of the Inside Waste Pile.

VI. CERTIFICATION

Upon completion of closure of the Inside Waste Pile, Pelham Phosphate Company and General Engineering Laboratories will submit certification to the Environmental Protection Division stating that the facility has been closed out in accordance with the EPD approved closure plan.

Prepared and Submitted by

A handwritten signature in black ink, appearing to read "George C. Greene", with a horizontal line extending from the end of the signature.

George C. Greene, P.E., Ph. D.
SC Registration No. 9103
Vice President
General Engineering Laboratories

APPENDIX I

Assumptions for Closure Cost Estimate

General

- Collected wash water will be used in the fertilizer process as makeup water.

Volumes

- Wash Water..... 100 gallons

Costs

- Labor (per man hour).....\$ 20.00/manhour
- Engineering Consulting.....\$ 75.00/hour
- Laboratory Analyses - Cd, Cr, and Pb (total concentrations).....\$ 75.00/set

Cost Estimate

<u>ACTIVITY</u>	<u>Amount</u>
1. Clean concrete with cold water wash and scrub	
Labor: 2 men x \$ 20.00/manhour x 8 hours/day.....	\$ 160
2. Sample and Analyze concrete to confirm removal of contamination	
Background Analyses: 5 sets x \$ 61/set.....	\$ 305
Waste Pile Area Analyses: 5 sets x \$ 61/set.....	\$ 305
3. Certification of Closure	
Engineering: 8 hours x \$ 75/hour.....	\$ <u>600</u>
Estimated Closure Costs	\$ 1,370
Contingencies (15%)	\$ <u>210</u>
Subtotal	\$ 1,580
Round up to obtain Closure Estimate	\$ 1,800
 In the event that Pelham Phosphate Company is unable to complete the closure, EPD will select a party to take over the task of administrating the closure. An additional 25% is included to provide funding for this task.	 \$ <u>450</u>
 Total Estimated Closure Costs.....	 \$ 2,250

ACTIVITY**WEEKS**

Public Notice Period													
Receive EPD approval to begin closure													
Process remaining materials into product													
Clean area with shovels and brooms													
Wash background area and waste area													
Collect samples from each area													
Return collected wash water to fertilizer process													
Analyze the two sets of concrete samples													
Confirm completeness of decontamination													
Prepare Closure Certification documents													

Appendix II**Pelham Phosphate Company
Inside Waste Pile Closure Schedule**



**Trust Company Bank
of South Georgia, N.A.**

November 7, 1984

J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
270 Washington Street S. W.
Atlanta, GA 30304

Dear Sir:

We hereby establish our Irrevocable Standby Letter of Credit No. 231 in your favor, at the request and for the account of Pelham Phosphate Co., Pelham, Georgia up to the aggregate amount of One Hundred Thirty-Three Thousand and no/100 U.S. Dollars \$133,000.00 available upon presentation of:

- (1) Your sight draft, bearing reference to this letter of credit No. 231 and
- (2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Georgia Hazardous Waste Management Act, O.C.G.A. 12-8-60, et seq."

This letter of credit is effective as of November 7, 1984 and shall expire on November 7, 1985 but such expiration date shall be automatically extended for a period of one year to November 7, 1986 and on each successive expiration date, unless at least 120 days before the current expiration date, we notify both you at the above address and Pelham Phosphate Co. by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and Pelham Phosphate Co., as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of Pelham Phosphate Co. in accordance with your instructions.

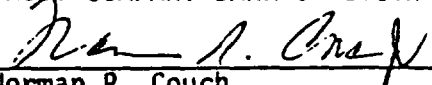
We certify that the wording of this letter of credit is identical to the wording specified in paragraph 391-3-11.05 of the Rules of the Georgia Department of Natural Resources, Environmental Protection Division.

This credit is subject to the "Uniform Customs and Practice for Documentary Credit (1974 Revision,) International Chamber of Commerce Pub. 290."


Very truly yours,

TRUST COMPANY BANK OF SOUTH GEORGIA

By:


Norman R. Couch
Senior Vice President

Attest:


R. Perry Saville
Assistant Vice President

Trust Fund for Closure and/or Post-closure Care

Trust Agreement

Trust Agreement, the "Agreement", entered into as of 11-7-84 by and between Pelham Phosphate Company, a Georgia corporation, the "Grantor", and The Trust Company Bank of South Georgia, a national bank, the "Trustee".

Whereas, the Department of Natural Resources, Environmental Protection Division, "EPD", an agency of the State of Georgia, has established certain regulations applicable to the Grantor, requiring the owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for the closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions.

As used in this Agreement:

- (a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.
- (b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.
- (c) The term "EPD" means the Environmental Protection Division of the Department of Natural Resources, State of Georgia.
- (d) The term "EPD Director" means the Director of the Environmental Protection Division of the Department of Natural Resources, State of Georgia.

Section 2. Identification of Facilities and Cost Estimates.

This agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund.

The Grantor and the trustee hereby establish a trust fund, the "Fund", for the benefit of the State of Georgia. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPD.

Section 4. Payment for Closure and Post-Closure Care.

The Trustee shall make payments from the Fund as the EPD Director shall direct, in writing, to

provide for the payment of the costs of the closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor of other persons as specified by the EPD Director from the Fund for the closure and post-closure expenditures in such amounts as the EPD Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund.

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management.

The Trustee shall invest and re-invest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the trustee, to the extent insured by the agency of the Federal or State government; and
- (c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment.

The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

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Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

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All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with administration of this Trust, including fees for legal services rendered by the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

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conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the fund and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPD Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee.

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPD Director to the Trustee shall be in writing, signed by the EPD Director or his designee, and the Trustee shall act and be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPD hereunder has occurred. The Trustee shall have no duty to act in absence of such orders, requests, and instructions from the Grantor and/or EPD, except as provided for herein.

Section 15. Notice of Nonpayment.

The Trustee shall notify the Grantor and the EPD Director by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement.

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the EPD Director, or by the Trustee and the EPD Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination.

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPD Director or by the Trustee and the EPD Director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification.

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPD Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in this defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law.

This Agreement shall be administered, construed, and enforced according to the laws of the State of Georgia.

Section 20. Interpretation.

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

Section 21. Addresses.

Any notice to the parties to this Agreement or to the EPD Director required by this Agreement shall be deemed sufficient if sent by certified U.S. Mail to the appropriate party or to the EPD Director at the following address:

Grantor: Pelham Phosphate Co.

Address: Pelham, Ga. 31779

Trustee: Trust Company Bank of South Georgia

Address: P.O. Box 1247
Albany, Georgia 31703

EPD Director: J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
270 Washington Street, S.W.
Atlanta, Georgia 30334

It shall be the responsibility of each party to notify the other parties in writing of any change to its address stated above.

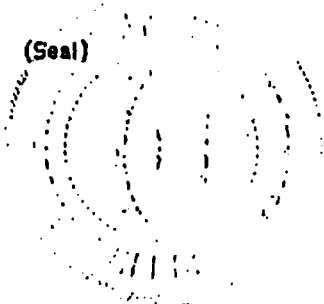
In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in paragraph 391-3-11-.05 of the Rules of the Georgia Department of Natural Resources, Environmental Protection Division.

James J. Davis
(Signature of Grantor)

Vice-President & General Manager
(Title)

Attest: Jaquelyn Shelton
(Title) Secretary

(Seal)



TRUST COMPANY BANK OF SOUTH GEORGIA

Norman R. Couch

Norman R. Couch, Sr.
Senior Vice President

(Signature of Trustee)

Attest:

R. Perry Saville

(Title) Assistant Vice President

(Seal)

Certificate of Acknowledgement

State of Georgia
County of Mitchell

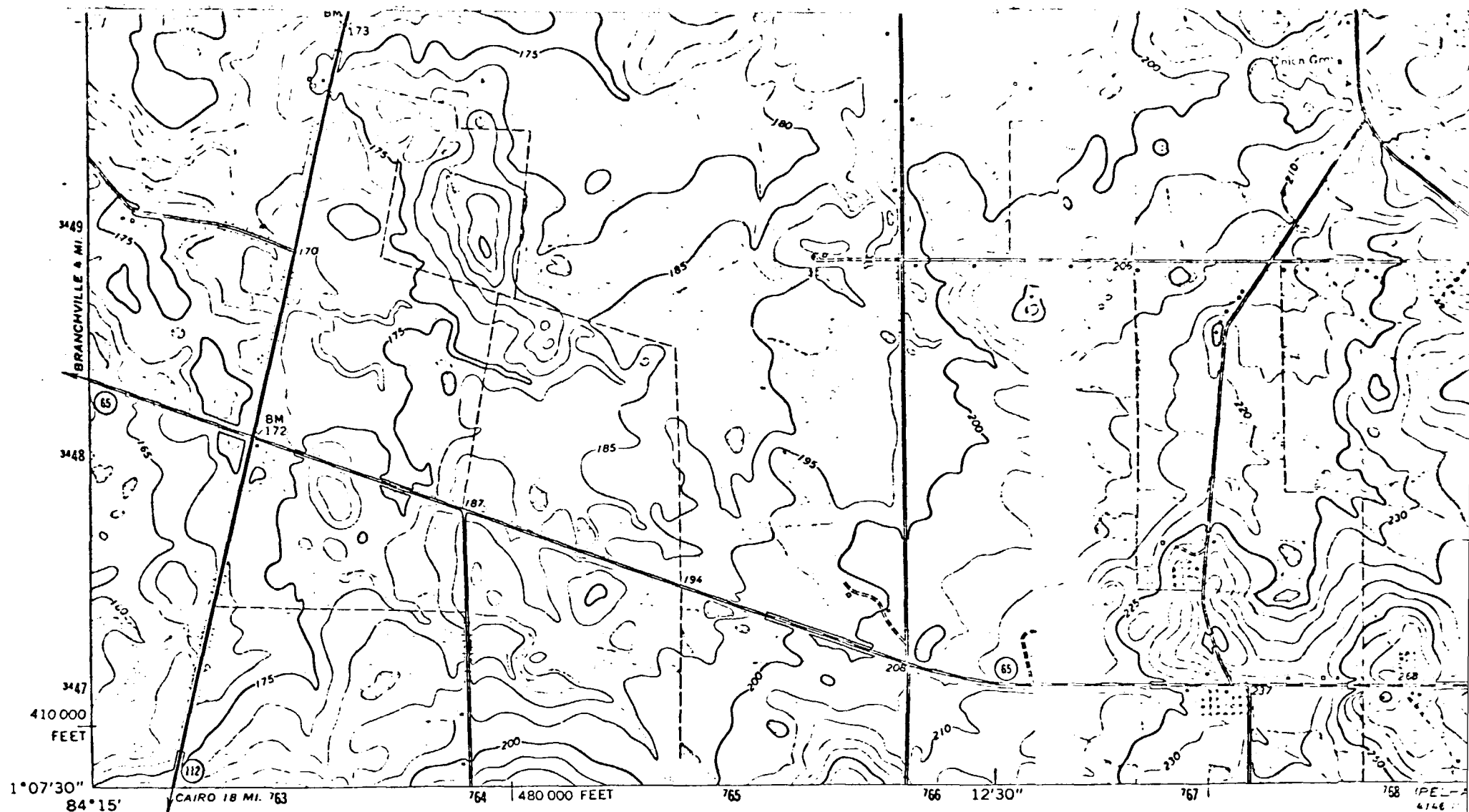
On this _____, before me personally came _____ to me known, who, being by me duly sworn, did depose and say that she/he resides at _____ that she/he is _____ of Pelham Phosphate Company, the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

Charlue Moody

(Notary Public)

My commission expires on My Commission Expires February 17, 1986.

fc TRUST FUND.m1



POND
6 III SE

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and Georgia Geodetic Survey

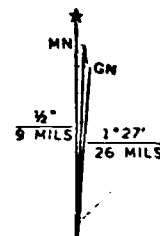
Topography by photogrammetric methods from aerial
photographs taken 1968. Field checked 1971

Projection and 10,000-foot grid ticks: Georgia coordinate
system, west zone (transverse Mercator)

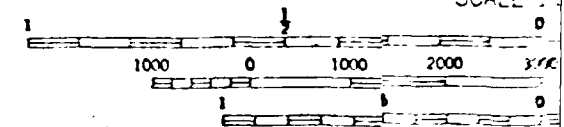
1000-meter Universal Transverse Mercator grid ticks,
zone 16, shown in blue. 1927 North American datum

Fine red dashed lines indicate selected fence and field lines
generally visible on aerial photographs. This information is unchecked

Red tint indicates areas in which only landmark buildings are shown



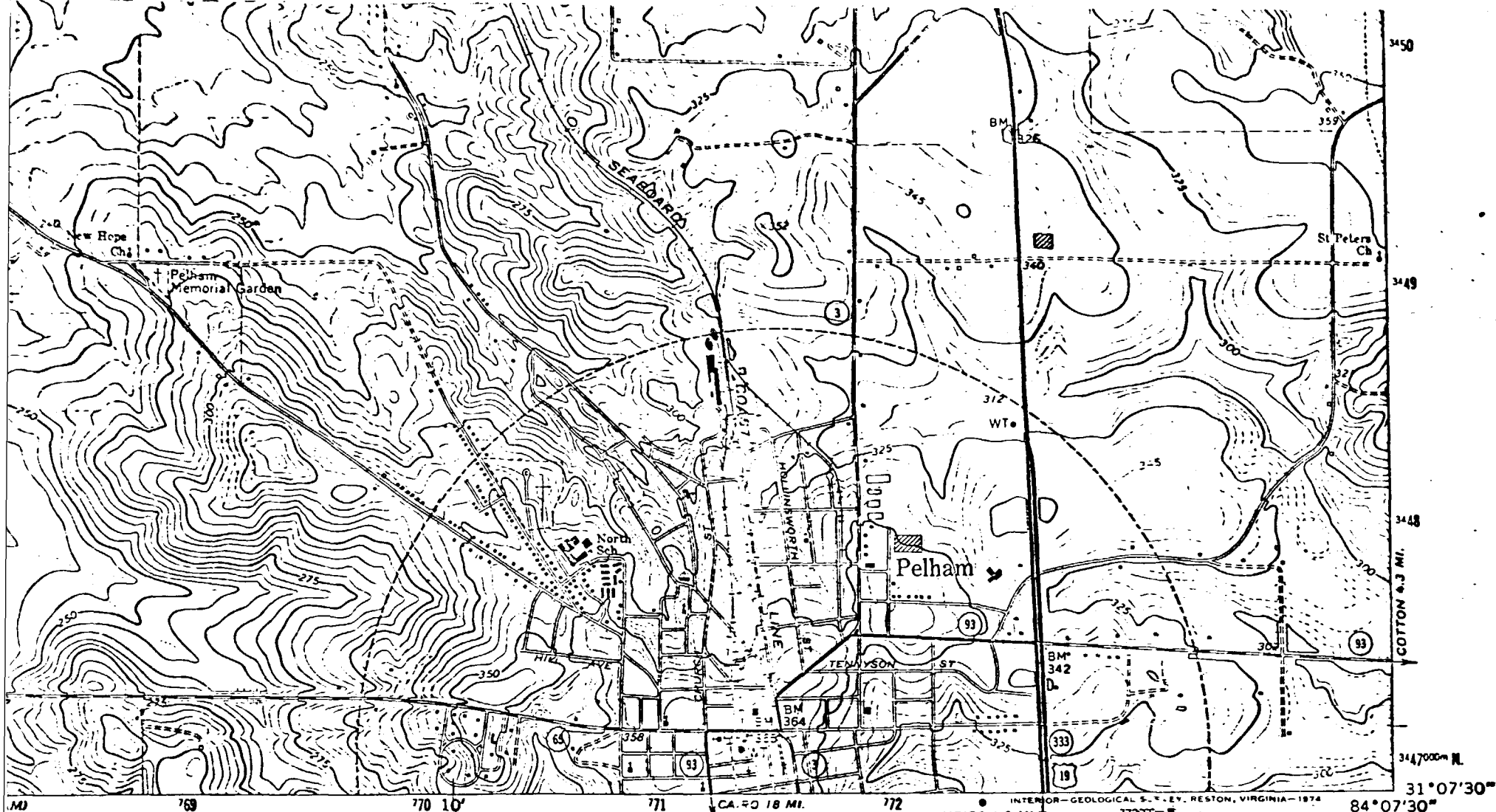
UTM GRID AND 1971 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



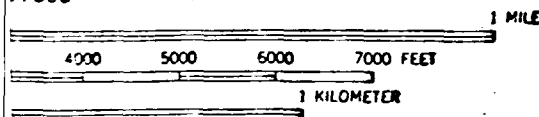
CONTOUR INTERVAL
NATIONAL GEODETIC SURVEY

91341

THIS MAP COMPLETES WITH DATA
FOR SALE BY U.S. GEOLOGICAL SURVEY
A FOLDER DESCRIBING TOPOGRAPHIC MAPS



14000



VAL 5 FEET
CAL DATUM OF 1929



QUADRANGLE LOCATION

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1974
MEIGS 4.3 MI.
THOMASVILLE 20 MI.
773000 E
84°07'30"

ROAD CLASSIFICATION

Primary highway, _____ Light-duty road, hard or
hard surface _____ improved surface _____
Secondary highway, _____ Unimproved road _____
hard surface _____

Interstate Route U. S. Route State Route

CAMILLA, GA.

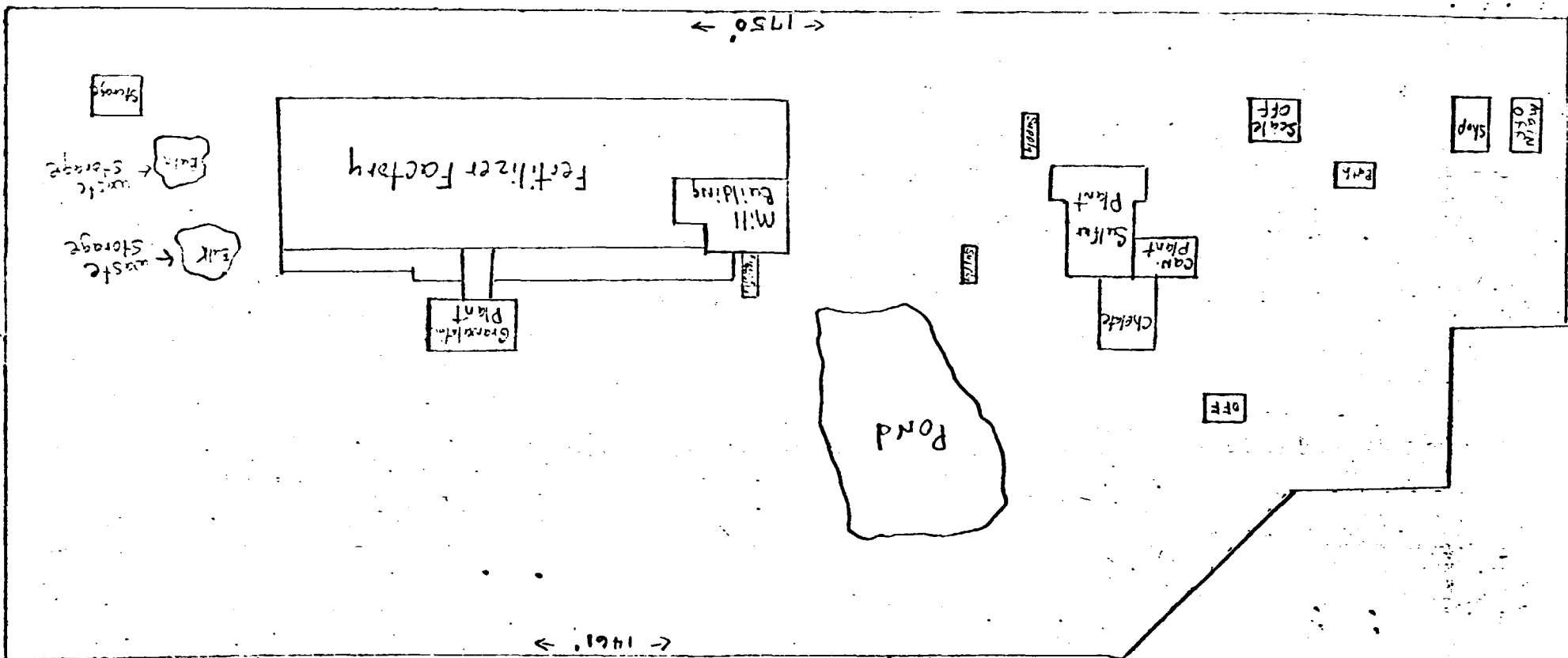
N3107.5—W8407.5/7.5

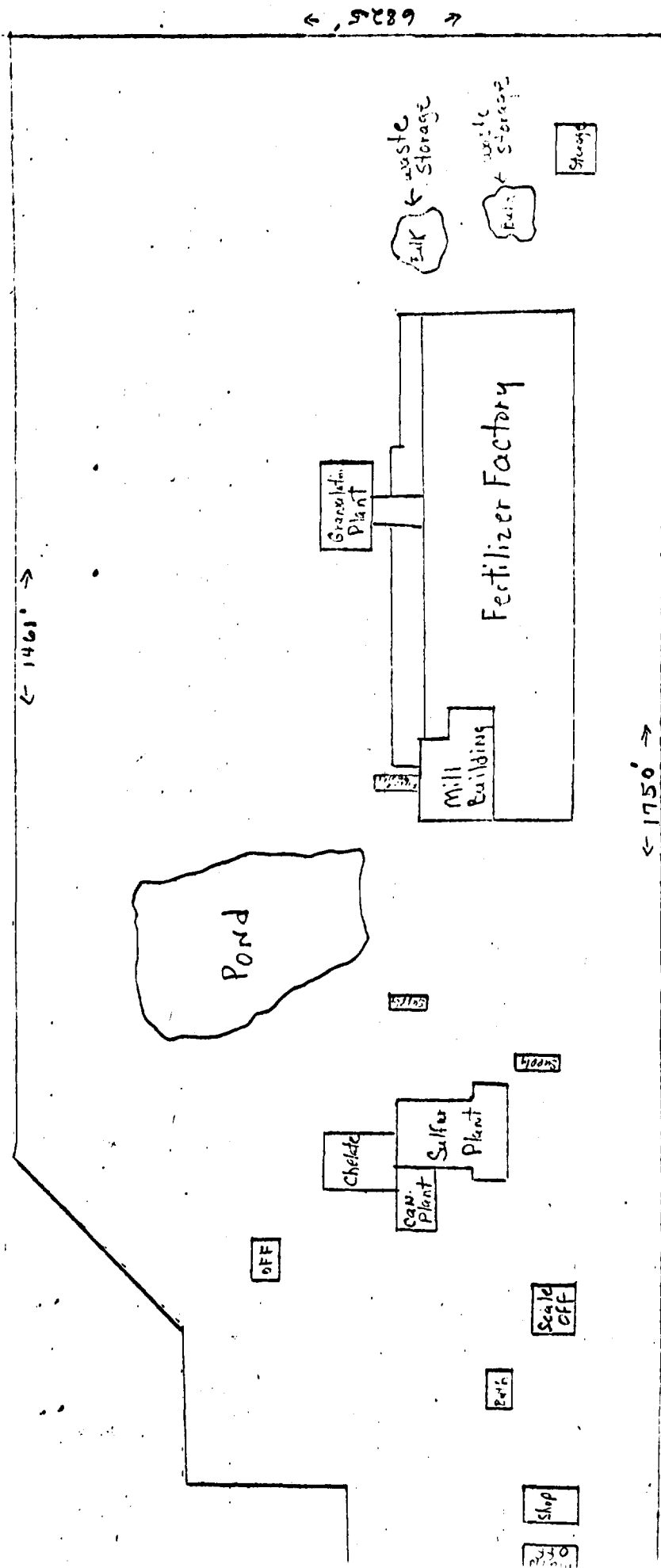
1971

AMS 4146 II NW—SERIES V845

ALL MAP ACCURACY STANDARDS
SURVEY, RESTON, VIRGINIA 22092
NO SYMBOLS IS AVAILABLE ON REQUEST

Pelham Phosphate Co.





Pelham Phosphate Co.

United States
Environmental Protection
Agency

Environmental Monitoring
Systems Laboratory
P.O. Box 93478
Las Vegas NV 89193-3478

TS-PIC-94119
January 1994

Research and Development



Site Analysis Stoller Chemical / Pelham Phosphates Company Pelham, Georgia



91711



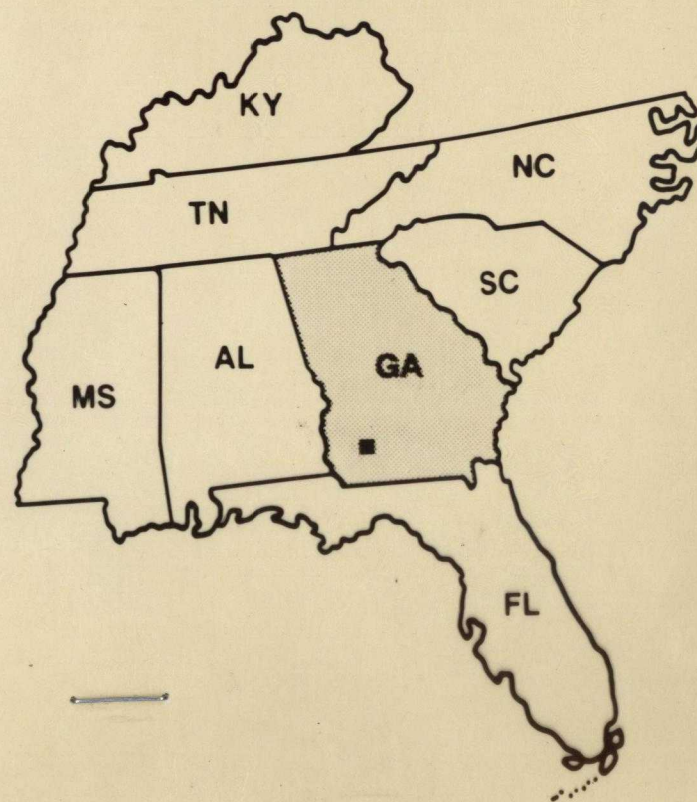
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STOLLER CHEMICAL / PELHAM PHOSPHATES COMPANY

0014A GAD003300092 V: 01
SITE ANALYSIS - AERIAL PHOTOS

1994

EPA Region 4
and OERR



TS-PIC-94119
January 1994

Site Analysis
Stoller Chemical/Pelham Phosphates Company
Pelham, GA

by
Mystie W. McCormick, Imagery Analyst
Hughes STX Corporation
Warrenton, Virginia 22186

Contract No. 68-C3-0367

Work Assignment Manager
Gordon E. Howard, Jr.
Environmental Photographic Interpretation Center
Environmental Monitoring Systems Laboratory
Warrenton, Virginia 22186

ENVIRONMENTAL MONITORING SYSTEMS LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
LAS VEGAS, NEVADA 89193-3478

NOTICE

This document has undergone a technical and quality control/assurance review and approval by personnel of the EPA/ORD Environmental Monitoring Systems Laboratory at Las Vegas (EMSL-LV), and is for internal Agency use and distribution only.

ABSTRACT

This report presents an analysis of aerial photography of the Stoller Chemical/Pelham Phosphates Company, located in Pelham, Georgia. The site was analyzed to assist the Environmental Protection Agency (EPA)'s Region 4 in its hazard ranking assessment of past disposal activities.

Collateral information supplied by EPA Region 4 states the site was used for the production of phosphate fertilizers. The company utilized flue dust as raw material to manufacture the fertilizers. Reportedly, the buildings are currently in poor condition and both ground water and a surface spring adjacent to the site are contaminated.

The findings from the analysis of aerial photography showed three impoundments, a raw materials handling area, a possible trench, staining, numerous tanks, and a significant amount of sedimentation runoff from the site into the adjacent unnamed streams. Aside from the stair-stepped formation of the two impoundments in the southern portion of the site, it appears as though no effort to control runoff from the site to the two unnamed streams west of the site was taken. Several barren areas were observed in the latter years of the analysis. These areas were located where previous disturbances, deposition of light-toned materials, or raw materials handling occurred over the period of the analysis.

The EPA's Environmental Photographic Interpretation Center in Warrenton, Virginia, a branch of the Advanced Monitoring Systems Division of the Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, performed this analysis at the request of the Superfund Support Section of EPA Region 4 in Atlanta, Georgia, and the Office of Emergency and Remedial Response in Washington, D.C. This analysis covers the period between 1952 and 1993, and the report was completed in January 1994.

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INTRODUCTION

An analysis of aerial photography was performed on the Stoller Chemical/Pelham Phosphates Company site, located in north Pelham, Georgia. The site comprises approximately 7 hectares (17 acres). The CERCLIS ID Number is GAD003300092, and the Site ID Number is 042M.

The Environmental Protection Agency (EPA)'s Region 4 requested this analysis to assist in the site assessment for hazard ranking by documenting site activities related to past disposal practices at the site.

Figure 1 shows the site location, keyed to a photocopy of a U.S. Geological Survey (USGS) 1:24,000-scale topographic map. Site boundaries or areas used in this analysis were determined from observations made from the aerial photography in conjunction with collateral data supplied by EPA Region 4 and do not necessarily denote legal property lines or ownership.

Aerial photography of the Stoller Chemical/Pelham Phosphates Co. was obtained to represent the period from 1952 to 1993.¹ Black-and-white photography from 1952, 1961, 1968, 1979, and 1993; and color infrared photography from 1983 and 1988 were used for this analysis. Photography from 1983 was analyzed but not reproduced for this report due to the poor resolution of the photography. Any significant findings from this year will be annotated and discussed with the following year of photography reproduced for this report.

Collateral information supplied by EPA Region 4 indicates the site was used for the production of phosphate fertilizers by using flue dust as raw material. The ground water and a surface spring adjacent to the site are contaminated. Large scale removal is underway at the site and the buildings are described as being in poor condition.

The focus of the analysis is to document past disposal activities at the site with specific emphasis on identifying

¹A complete listing of maps and photography used in this report is provided in the References section.

stained soil, piles and impoundments. The findings from the analysis of aerial photography include three impoundments, a raw materials handling area, a possible trench, staining, numerous tanks, and a significant amount of sedimentation runoff from the site into the adjacent unnamed streams. Aside from the stair-stepped formation of the two impoundments in the southern portion of the site, it appears as though no effort to control runoff from the site to the two unnamed streams west of the site was taken. The impoundments appeared to serve as settling ponds that discharged liquids through a spillway into an unnamed stream west of the site. Several barren areas were observed in the latter years of the analysis. These areas were located where previous disturbances, deposition of light-toned materials, or raw materials handling occurred over the period of the analysis.

The EPA's Environmental Photographic Interpretation Center in Warrenton, Virginia, a branch of the Advanced Monitoring Systems Division of the Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, performed this analysis at the request of the Superfund Support Section of EPA Region 4 in Atlanta, Georgia, and the Office of Emergency and Remedial Response in Washington, D.C. This analysis covers the period from 1952 to 1993, and the report was completed in January 1994.

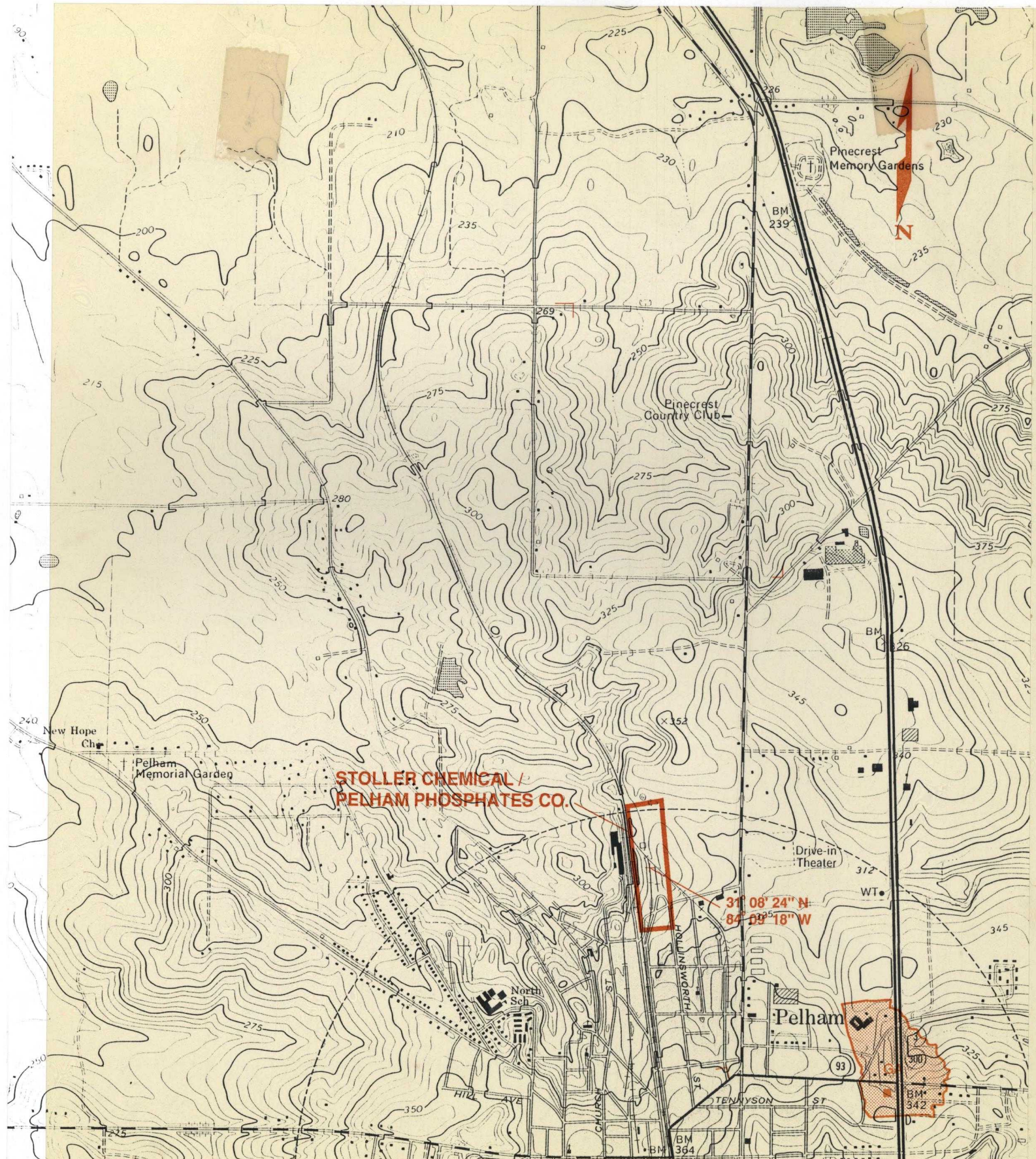


FIGURE 1
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

LOCATION MAP
CAMILLA, GA QUAD

APPROX. SCALE 1 : 24,000

METHODOLOGY

A search of government and commercial sources was undertaken to obtain the best available aerial photography of the site spanning the desired time frame. The photography and other sources of information used in this report are listed in the References section.

The analysis was performed by viewing backlit transparencies of aerial photography through stereoscopes. Stereoscopic viewing creates a perceived three-dimensional effect which, when combined with viewing at various magnifications, enables the analyst to identify signatures associated with different features and environmental conditions. The term "signature" refers to a combination of visible characteristics (such as color, tone, shadow, texture, size, shape, pattern, and association) which permit a specific object or condition to be recognized on aerial photography.

The terms "possible" and "probable" are used to indicate the degree of certainty of signature identification. "Possible" is used when only a few characteristics are discernible or these characteristics are not unique to a signature. "Probable" is used when incrementally more characteristics are discernible. No qualifying terms are used when the characteristics of a signature allow for a definite feature identification.

Photographic prints were made from those years of aerial photographic coverage that reveal significant information about the site. Overlays to the prints and/or base maps serve to locate significant features; additional observations and analysis are discussed in the text. Features are annotated until no longer present. Site boundaries or areas used in this analysis were determined from observations made from the aerial photography in conjunction with collateral data supplied by EPA Region 4 and do not necessarily denote legal property lines or ownership.

Due to factors inherent in the photographic printing process, prints do not exhibit the level of detail that is visible in the original aerial photography. Therefore, some features identified from the aerial photography may not be

clearly discernible, or even visible, on the photographic prints presented in this report.

Color infrared film has been reproduced for the 1988 photography (Figure 6). Normal color film records reflected energy in the blue, green, and red portions of the electromagnetic spectrum. Color infrared film differs in that it is sensitive not only to reflected blue, green, and red energy, but also to reflected energy in the infrared portions of the electromagnetic spectrum; however, the blue energy is filtered out and only the green, red, and infrared energy is recorded. When color infrared film is processed, it displays "false" colors that do not correspond with the true colors of the features photographed. For example, features that are highly reflective in the infrared portion of the spectrum, such as healthy green vegetation, appear red to magenta on color infrared film. The false color displayed by a feature is produced in accordance with the proportions of infrared, green, and red energy it reflects. These proportions are referred to as the feature's "spectral reflectance characteristics." To interpret the true color of a particular feature accurately from color infrared film, a knowledge of the spectral reflectance characteristics of that feature is required. This information is not readily available for the majority of features identified in this report. Therefore, unless otherwise indicated, no attempt is made to interpret the true colors of features identified on the color infrared film analyzed for this report.

AERIAL PHOTO SITE ANALYSIS

APRIL 2, 1952 (FIGURE 2)

A drainage analysis was performed for this year; significant changes observed in subsequent years will be annotated. Surface runoff and sedimentation from the site flows westward into the two unnamed streams. These streams appear to be mostly dry streambeds throughout the analysis; however, liquid runoff from the site area is observed in the streambeds in several years of photography.

The site encompasses approximately 7 hectares (17 acres) along the west side of the railroad. There are two large buildings with a pipeline running between them. The south end of the pipeline either runs underground or terminates before reaching the southern building. An impoundment (IM) is situated west of the pipeline and receives runoff from a drainage ditch that originates just east of the railroad tracks. The entire area between the two large onsite buildings is wet and/or stained and disturbed (not annotated). This area is characterized by these same conditions throughout the analysis and will not be discussed further. Surface runoff from this vicinity flows westward, entering the impoundment and two unnamed streams.

A small building with a stain emanating from its south side, a possible trench, and a sparsely vegetated area which exhibits surface striations from past heavy equipment activity are visible in the northern half of the site. Additionally, several locations of light-toned (LT) material deposits are noted. An onsite access road leads to the northern grouping of material deposits. An offshoot of this access road extends into the field north of the site; however, at this time there is no evidence of environmentally significant activity related to the site in this area.

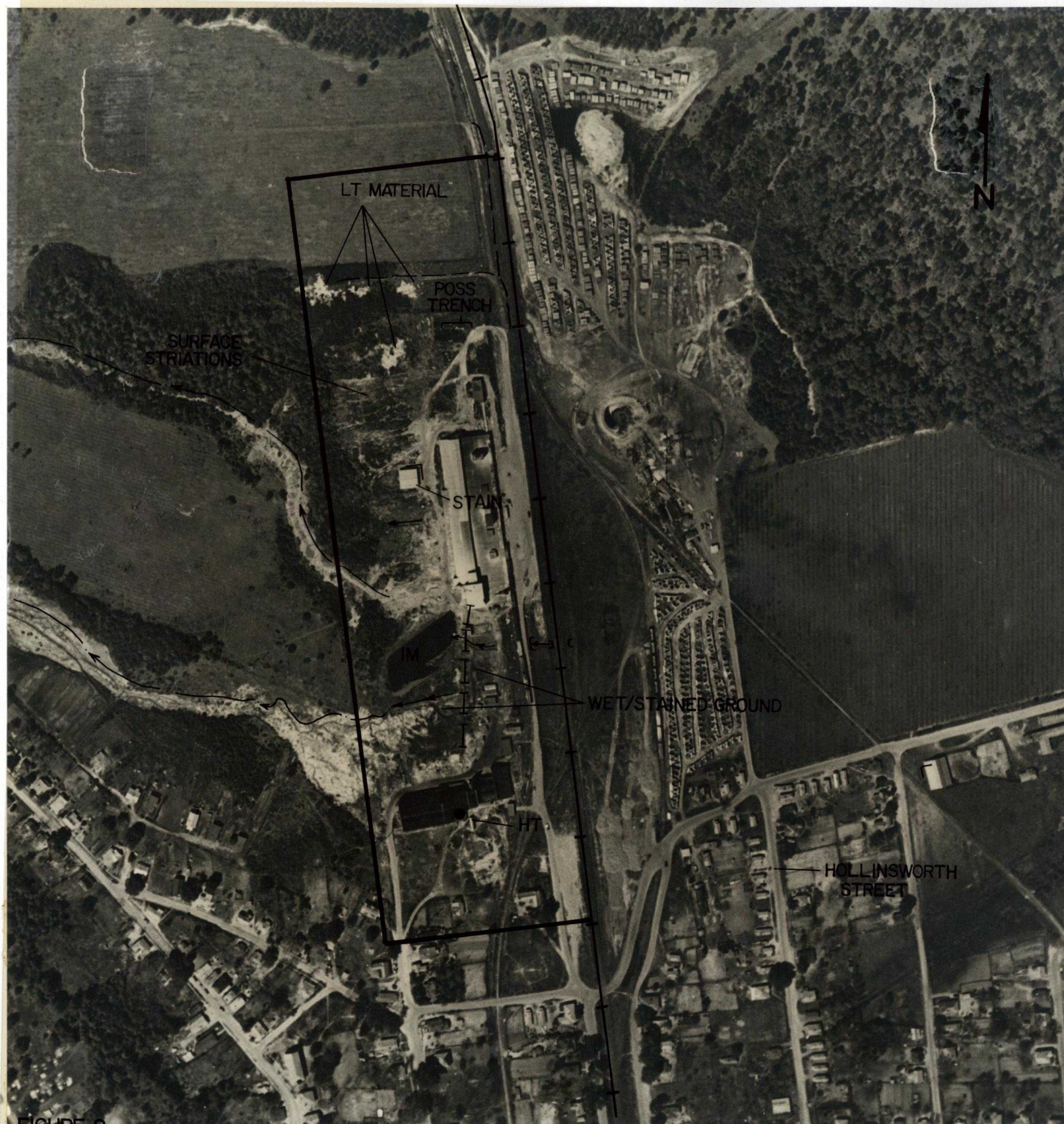


FIGURE 2
STOLLER CHEMICAL / PELHAM PHOSPHATES Co.

APRIL 2, 1952

APPROX. SCALE 1:4,100

NOVEMBER 10, 1961 (FIGURE 3)

Production activity at the site appears to have increased as the northern building has expanded slightly and new tanks have been added at the southern building (note: pipelines are seen running between tanks, and between tanks and buildings throughout the remainder of the analysis; no attempt was made to document these pipelines and connections). A small building has been removed and another one added in the northern portion of the site.

An area devoid of vegetation extends from the pipeline to the impoundment suggesting a probable discharge. A revegetated ground scar is noted west of the northern large building. Vehicle access to this area is observed, suggesting a past disposal location. In the northern portion of the site, deposits of light-toned material and ground scars from equipment operation are noted. Much of the remaining northern portion of the site has revegetated, obscuring the surface striations visible in 1952.



- Legend
- DB - Debris
 - HT - Horizontal Tank
 - IM - Impoundment
 - LQ - Liquid
 - LT - Light-Toned
 - MM - Mounded Material
 - NB - New Building
 - O - Object
 - - Access Road
 - ||||| - Berm
 - - Channalized Drainage
 - .-.- - Drainage
 - ===== - Edge of Slope
 - - Feature Boundary
 - - Open-Topped Verticle Tank
 - |—|—| - Pipeline
 - - Site Boundary
 - - Verticle Tank

FIGURE 3
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

NOVEMBER 10, 1961

APPROX. SCALE 1 : 4,000

MARCH 24, 1968 (FIGURE 4)

Building expansion, new buildings (NB), and new tanks are noted onsite this year. Another section of the pipeline is visible this year. Due to the poor resolution of photography spanning the period 1979 through 1988 it cannot be determined if this section remains in place; however, it is again visible in the 1993 photography.

A new impoundment has been excavated in the northern portion of the site. The impoundment contains liquid in its west end and is not lined. A bin and several other objects are visible east of the impoundment. Slash piles from recent clearing activity and scattered debris (DB) are visible north and west of the impoundment, respectively.



- Legend
- DB - Debris
 - HT - Horizontal Tank
 - IM - Impoundment
 - LQ - Liquid
 - LT - Light-Toned
 - MM - Mounded Material
 - NB - New Building
 - O - Object
 - - Access Road
 - ||||| - Berm
 - - Channelized Drainage
 - > - Drainage
 - ~~~~~ - Edge of Slope
 - - Feature Boundary
 - - Open-Topped Verticle Tank
 - |—|—| - Pipeline
 - - Site Boundary
 - - Verticle Tank

FIGURE 4
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

MARCH 24, 1968

SCALE VARIABLE

NOVEMBER 4, 1979 (FIGURE 5)

Two buildings have been dismantled at the site and the number of tanks has increased, suggesting a renovation of the fertilizer operation.

A new earthen berm has been added downslope of the impoundment to contain liquid (LQ) running from the impoundment.

A new raw material handling area is present in the northern portion of the site where the unlined impoundment was observed in 1968. This area is characterized by piles of material and equipment (none annotated) associated with this operation. A large mound of raw material (MM) is present offsite on the north side of the handling area. An access road (not annotated) leads west from this area to several ground scars. It cannot be determined if these are the result of deposition of material, ground disturbance, or partial remnants of the debris observed near this location in 1968.



FIGURE 5
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

NOVEMBER 4, 1979

APPROX. SCALE 1 : 4,800

JANUARY 26, 1988 (FIGURE 6)

The 1983 photography was not reproduced for this report due to the poor resolution of photography. Any significant findings from 1983 are discussed herein.

New tanks have been added throughout the southern half of the site. The bermed area downslope of the original impoundment onsite has been reconstructed to form a new impoundment. These stair-stepped impoundments, or settling ponds, discharge liquids through a spillway into the unnamed stream.

The raw material handling area remains active. A considerable amount of degradation of the vegetative cover has occurred from the raw materials handling area to the northern unnamed stream west of the site (area not annotated). This was also noted in 1983 and may be the result of sedimentation from the handling area and/or vegetation stress resulting from percolation of possible contaminants, which may have been present in the unlined impoundment seen in 1968. Additional mounds of raw material are visible west of the northern large building onsite. In 1983 this area was vegetated. An overgrown rectangular possible impoundment or building foundation is visible at the west site boundary. In 1983 an access road led to this location, which at that time was disturbed.

Two barren areas and a disturbed area are noted offsite. The barren area west of the site is situated where ground scars were observed in 1979. Each of these offsite areas appear to be associated with onsite activities.



FIGURE 6
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

JANUARY 26, 1988

APPROX. SCALE 1 : 4,000

JANUARY 23, 1993 (FIGURE 7)

New tanks, two of which are open-topped, have been added to the site. A large section of the pipeline between the two large buildings onsite has been removed.

There is little change at the two impoundments in the southern portion of the site. No liquid is being discharged from the spillway of the lower impoundment; however, staining (not annotated) of the spillway is evident.

The raw materials handling area is no longer active, as the equipment is situated in a vegetated area and appears to have been abandoned. Much of the area is barren and several small piles of material (not annotated) remain in place. Liquid is noted southwest of the barren area, along the possible sedimentation and/or stressed vegetation pathway (not annotated) which extends to the unnamed stream.

Piles of light-toned material are visible onsite and in the formerly disturbed area north of the site. No significant change is noted at the two offsite barren areas.



FIGURE 7
STOLLER CHEMICAL / PELHAM PHOSPHATES CO.

JANUARY 23, 1993

APPROX. SCALE 1 : 4,100

REFERENCES

AERIAL PHOTOGRAPHY

<u>Date</u>	<u>Agency</u>	<u>Mission Code</u>	<u>Agency Frame #</u>	<u>Orig. Scale</u>	<u>EPIC Frame #</u>
April 2, 1952	ASCS ¹	KX	7K:24-26	1:20,000	41811-41813
November 10, 1961	ASCS	KX	1CC:137-139	1:20,000	41808-41810
March 24, 1968	USGS ²	COY	1B:163 1F:168	variable	41877 41880
November 4, 1979	ASCS	13205	179:216-218	1:40,000	41805-41807
March 12, 1983	USGS	NHAP83	49:120	1:58,000	21282
January 26, 1988	USGS	NAPP	715:47,48	1:40,000	41869,41870
January 23, 1993	USGS	NAPPW	6581:21,22	1:40,000	41867,41868

MAP

<u>Source</u>	<u>Name</u>	<u>Scale</u>	<u>Date</u>
USGS	Camilla, GA	1:24,000	1988

¹Agricultural Stabilization and Conservation Service, U.S. Dept. of Agriculture

²U.S. Geological Survey, U.S. Department of the Interior



PELHAM PHOSPHATE COMPANY

MANUFACTURERS OF *Fertilizers, Superphosphate and Sulphur.*

MAIN OFFICE - PHONE 912-294-2081
PLANT OFFICE - PHONE 912-294-8178
ORDER PHONE - PHONE 912-294-9557

POST OFFICE BOX 468
PELHAM, GEORGIA 31779

SDMS DOC ID 91992



March 15, 1988

Mr. David Bullard
Environmental Protection Division
Floyd Towers East
205 Butler Street, SE
Atlanta, Georgia 30334

RE: Pelham Phosphate Company
Pelham, Georgia

Dear Mr. Bullard:

Following are the results of a sample taken on March 4, 1988 from the second pond at Pelham Phosphate's plant in Pelham, Georgia and analyzed by the City of Albany's Water, Gas and Light Commission lab.

BOD ₅	63 mg/l
Ammonia	47.6 mg/l
pH	3.0

The BOD of 63 mg/l is considerably lower than that of a domestic wastewater and should cause no problem to the City's treatment plant.

The ammonia level is approximately double that of a domestic wastewater but is within a range that could be assimilated by the City's plant considering a flow of only 20,000 gpd diluted by the remainder of the City sewage. Beyond some point a surcharge would be in order. However, it would be in the best interest of Pelham Phosphate and acceptable to the City not to require pretreatment for ammonia.

The pH of 3.0 is extremely low and will definitely require adjustment prior to discharge to the City system. Adjustment to a pH in the 6.0 - 9.0 range will be obtained by a two step process using limestone and caustic at a location between the two ponds.

March 15, 1988
Mr. David Bullard, EPD
Page Two

In general, it is proposed to enlarge the first pond as shown on the enclosed plan to provide adequate detention volume ensuring that the pond will not overflow. The additional pond volume will also increase normal retention time allowing more time for settlement of solids. As discussed earlier, pH adjustment will take place between the two ponds. The second pond will serve basically as a polishing pond. Effluent from the second pond will spill over into the concrete structure shown on the plan and will be pumped from this location into a holding tank and then into the City sanitary sewer system. A flowmeter with indicator and totalizer will be provided in the effluent force main. The sampling point for pretreated wastewater may be at the overflow into the pumping chamber.

Should you have any questions or desire additional information, please contact Tod Lanier of Stevenson & Palmer, Inc., our consulting engineers, at P.O. Box 46, Camilla, Georgia 31730.

Sincerely,

Joseph H. Downing
General Manager

JHD/s
Enclosure

cc: John Schotta, City of Pelham
Gene Pierce, Stover Chemical
Tod Lanier, Stevenson & Palmer, Inc.

MAY 21 1984



LAW ENGINEERING TESTING COMPANY
geotechnical, environmental & construction materials consultants
209 STONERIDGE DRIVE • SUITE 201
P.O. BOX 21879 • COLUMBIA, SOUTH CAROLINA 29221-1879
(803) 779-3161

May 18, 1984

SDMS DOC ID 92042



Pelham Phosphate Company
P. O. Box 468
Pelham, Georgia 31779

Attention: Mr. J. H. Downing, Vice President

Subject: Report of Well Installation and
Well Abandonment
Pelham Phosphate Company
Pelham, Georgia
LETCO Project No. CO-818

Gentlemen:

On March 27, 1984 Law Engineering received a call from Mr. Downing concerning the conditions of the wells installed during our August, 1983 exploration. Mr. Downing reported, that two of the wells were producing muddy ground-water samples and various observations indicated that the wells were not installed as shown on the Well Records.

The Pelham Phosphate Company hired a firm to develop the wells and obtain ground-water samples for analysis. Law Engineering discussed with the firm by telephone development of the wells. We were told that muddy water and pieces of clay were being flushed out of well numbers W-2 and W-3 and that it was thought that a bottom cap was no longer attached to the screened interval. Following our conversation, Law Engineering arranged to visit the site and gather detailed information about the conditions of the wells.

On April 2, 1984, Law Engineering visited the site to inspect the wells installed during our August, 1983 exploration. The wells were flushed with potable water and/or pumped. The following observations were made:

Pelham Phosphate Company
Pelham, Georgia
May 18, 1984

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Monitoring Well W-1

The well was flushed and only minimal amounts of sediment were observed. The measured depth coincided with our that reported on the Well Record.

Monitoring Well W-2

The well was flushed until the bottom cap was reached at a depth of 25.4 feet. This depth was 1.0 foot deeper than reported on the Well Record. The well was then pumped dry. As the well recharged, sand filled the screened interval.

Monitoring Well W-3

The well was flushed until the bottom cap was encountered at 29 feet. The bottom depth is 4 feet lower than indicated on the Well Record.

The well was then pumped dry. Sand filled the screened interval as water entered the well.

Monitoring Well W-4

The well was flushed and clay fragments roughly 1/3-inch across and smaller were observed in the wash water. The 1/2-inch PVC pipe used to flush the well would also become snagged at the bottom of the well. After the well was pumped dry approximately 0.5 feet sand and clay was detected at the bottom of the well.

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Pelham, Georgia
May 18, 1984

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Monitoring Well W-5

When the well was flushed with potable water, no bottom cap was detected. The well was flushed to a depth of 29 feet (9 feet below the reported bottom of the screened interval). No attempt was made to pump out the well.

These observations indicated that there were defects in wells W-2, W-3, W-4 and W-5 which allowed the surrounding soil to enter the wells. Therefore, the wells could not be relied upon to maintain access to the aquifer to permit future water-quality sampling. Law Engineering agreed to install new wells and "abandon" the existing wells W-2 through W-5 at no cost to Pelham Phosphate Company.

The existing wells were "abandoned" by placing a tremmie pipe inside each well and pumping cement/bentonite grout into the bottom of the well until ground water was displaced by the cement/bentonite grout. Well abandonment procedures are attached.

Monitoring Well Replacement

The new monitoring wells were installed in the boreholes created by soil borings adjacent to abandoned wells at the locations shown on the attached Boring Location Plan. The new well locations were located in the field by Law Engineering. The soil boring procedures are attached.

Monitoring wells were installed in each of the four soil borings by placing a 2-inch I.D., slotted well screen attached to a 2-inch I.D., solid, schedule 40 PVC pipe riser in the completed borehole. The well screen is a section of PVC pipe 5 feet long with 0.010 inch wide slots. Well graded fine to coarse sand was backfilled around the length of the well screen above any collapse of the natural

Pelham Phosphate Company
Pelham, Georgia
May 18, 1984

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formation. The backfill was placed to at least two feet above the top of the slotted screen. A bentonite seal was placed above the sand backfill and a grout mixture of cement, sand and bentonite was pumped from the top of the seal to the ground surface. Well details are presented on the attached Well Records. Elevations shown on the records are approximate and were estimated from the existing abandoned wells.

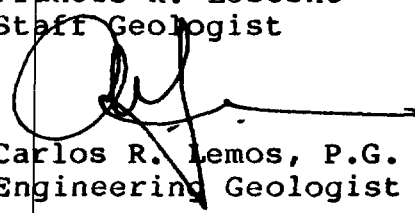
After the wells were installed, each well was bailed until reasonably clear water was observed.

If you have any questions, please contact us.


Sincerely,

LAW ENGINEERING TESTING COMPANY


Francis K. Lesesne
Staff Geologist

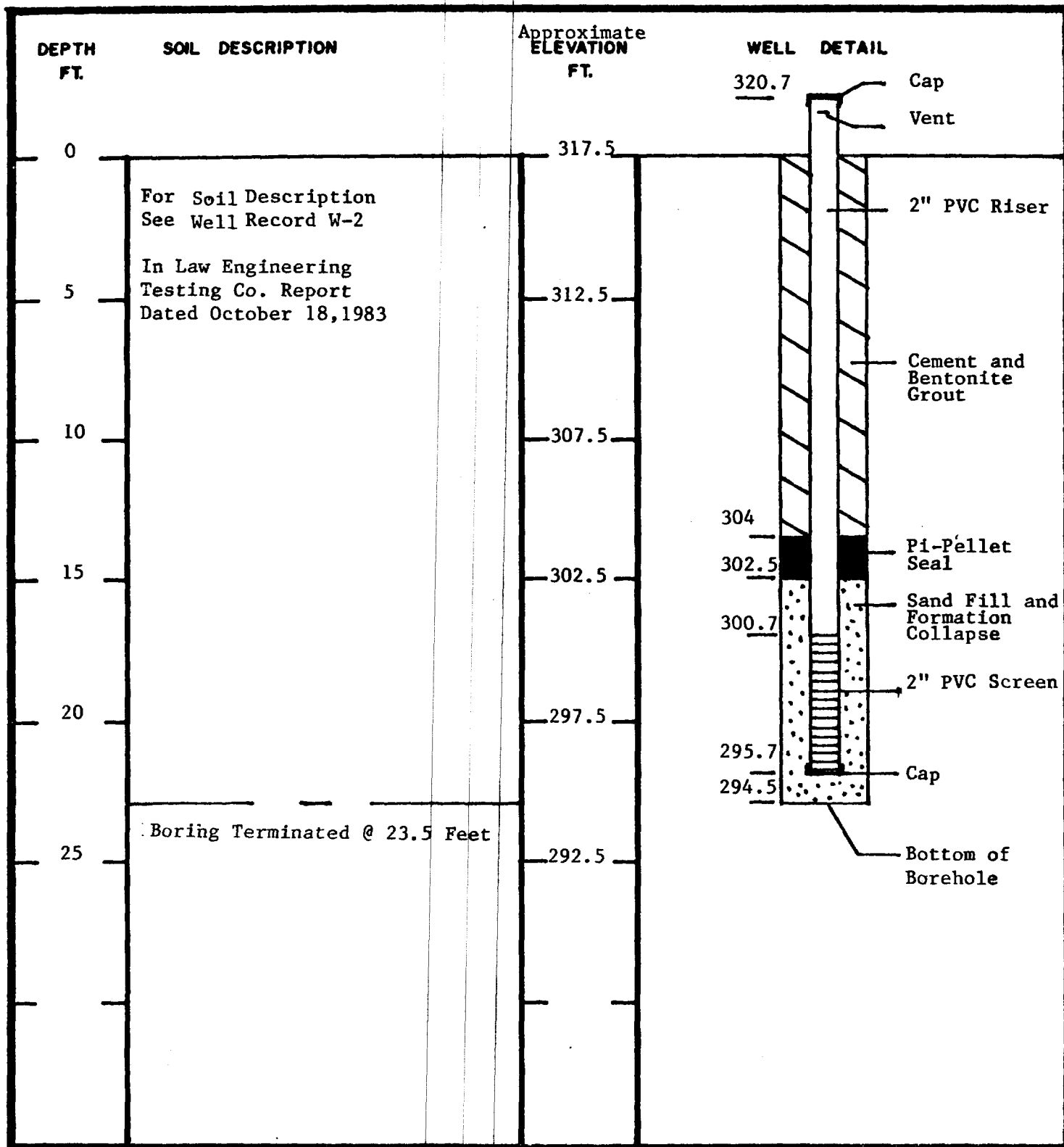

Carlos R. Lemos, P.G.
Engineering Geologist

Reviewed by:


Kenneth P. Akins, Jr., P.E.
Senior Engineer
Registered GA 10186

Attachments:

Well Location Plan
Monitoring Well Records
Soil Boring Procedures
Well Abandonment Procedures



LOCATION

Pelham Phosphate Co.

WELL RECORD

WELL NO.

W-2A

DATE INSTALLED

4/13/84

JOB NO.

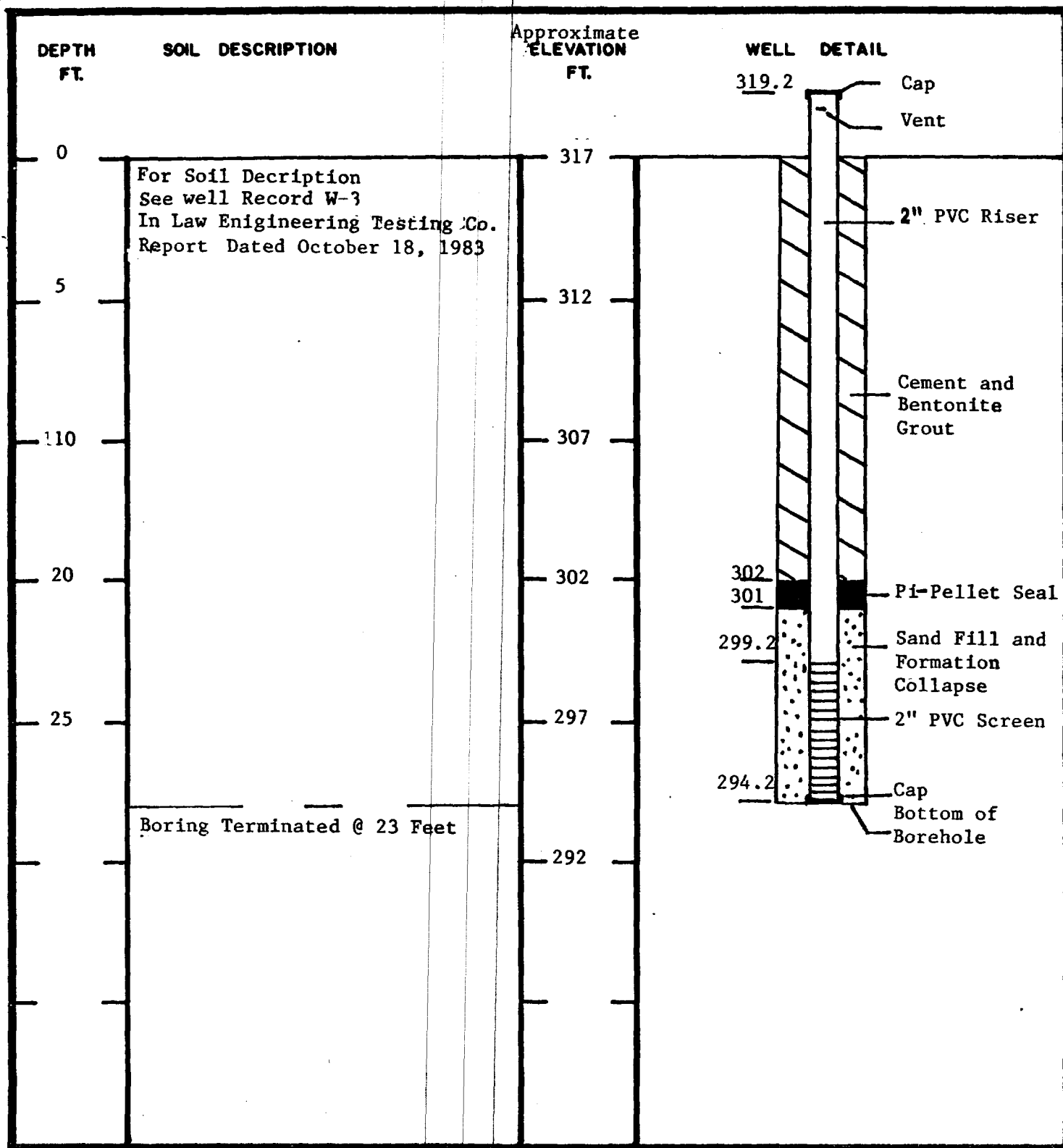
CO-818

DRILLING METHOD

Rotary with Water
without circulation

PAGE 1 OF 1

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LOCATION
DEPTH TO WATER

Pelham Phosphate Co.

WELL RECORD

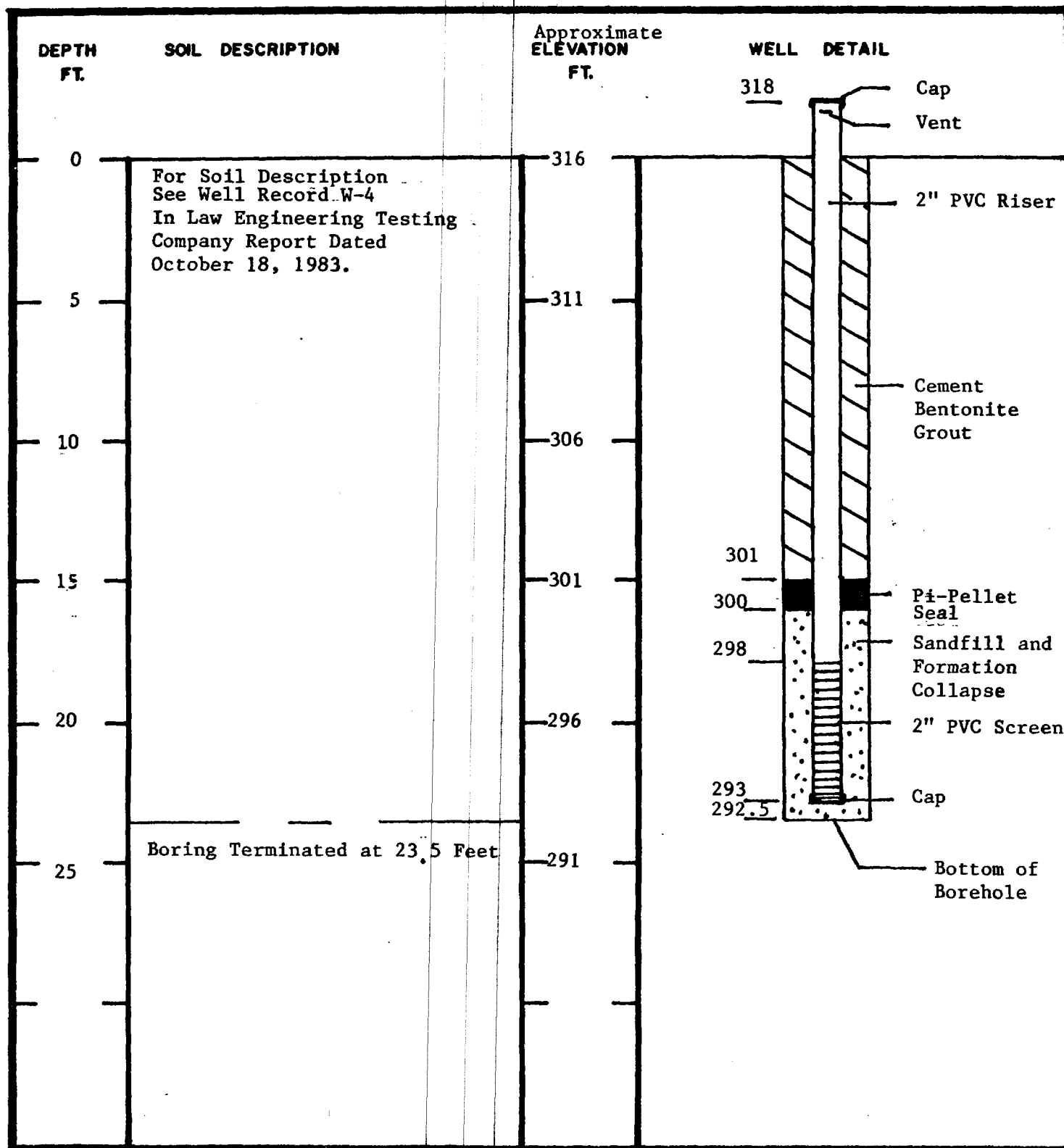
WELL NO. W-3A
DATE INSTALLED 4/13/84
JOB NO. CO-818

DRILLING METHOD

Rotary with Water
without circulation

PAGE 1 OF 1

LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA



LOCATION

Pelham Phosphate Co.

WELL RECORD

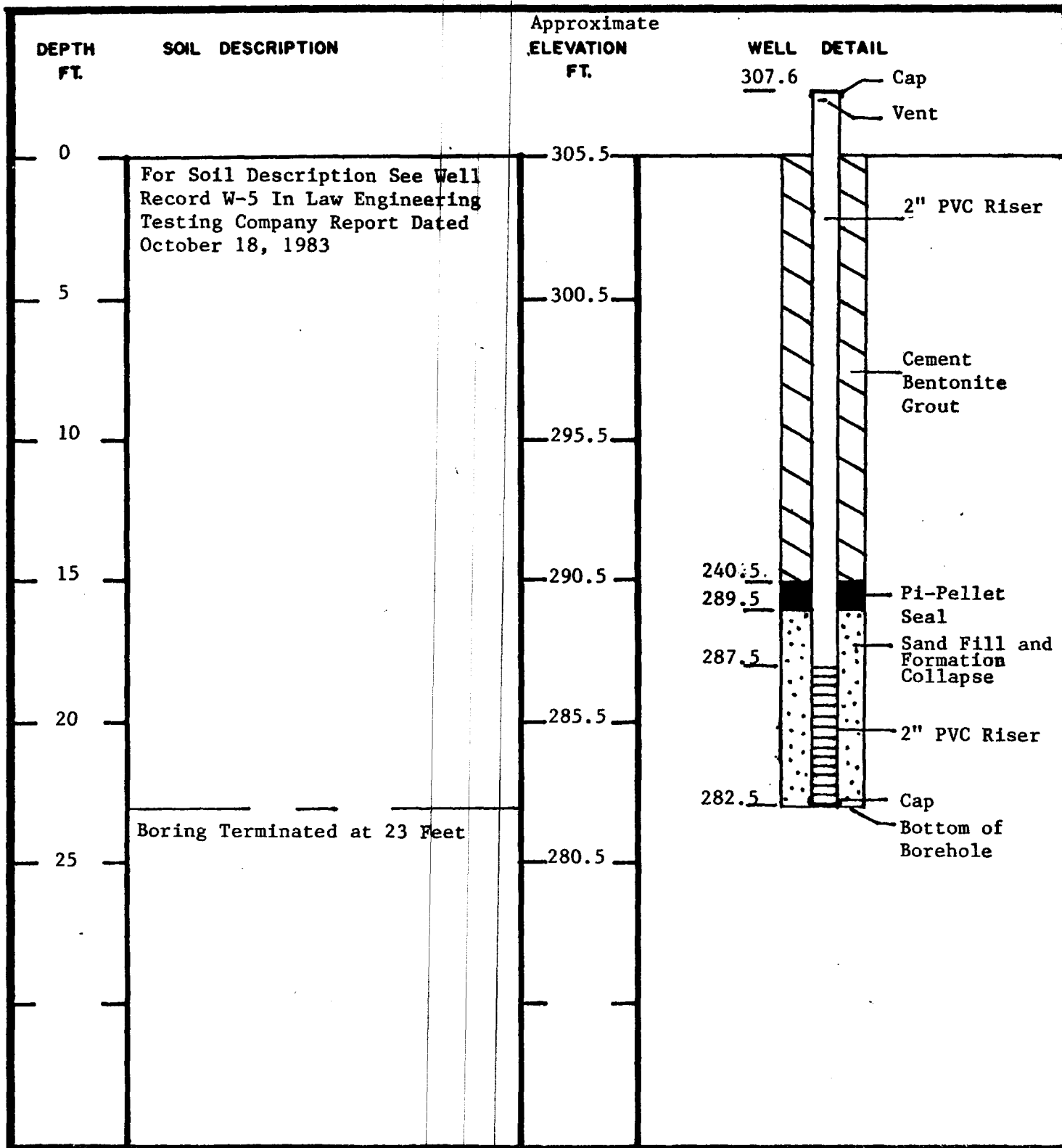
WELL NO. W-4A
 DATE INSTALLED 4/13/84
 JOB NO. CO-818

DRILLING METHOD

Rotary with Water
without Circulation

PAGE 1 OF 1

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COLUMBIA, SOUTH CAROLINA



LOCATION

Pelham Phosphate Co.

WELL RECORD

WELL NO.

W-5A

DATE INSTALLED

4/12/84

JOB NO.

CO-818

DRILLING METHOD

Rotary with Water
without Circulation

PAGE 1 OF 1

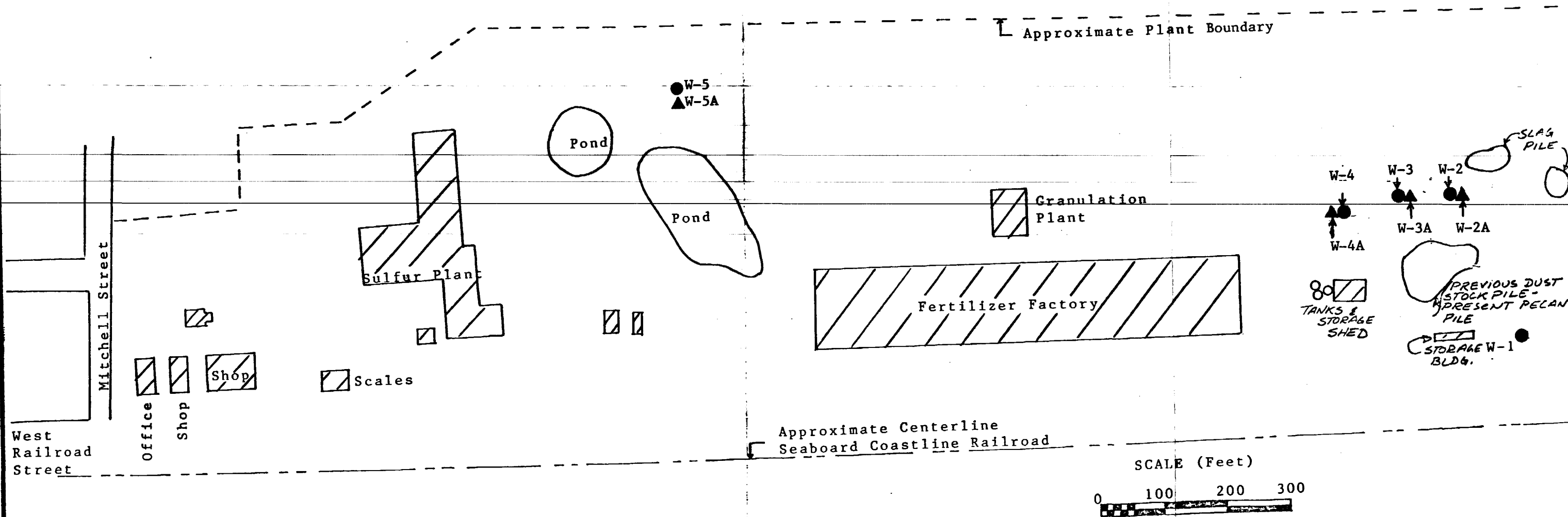
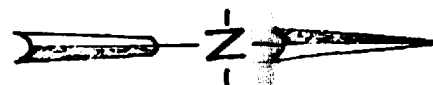
LAW ENGINEERING TESTING COMPANY
COLUMBIA, SOUTH CAROLINA

PROCEDURES

Soil Borings - The soil borings were advanced using a rotary drilling process with a 5-7/8 inch roller cone drill bit. Potable water obtained at the Pelham Phosphate Plant was used to flush soil cuttings from the borehole. The drilling water with cuttings was allowed to flow on to the ground surface, no water was recirculated. Standard penetration testing was not performed. Standard Penetration testing was not performed.

Well Abandonment - The existing wells were grouted in place using a cement/bentonite grout mixture. A tremmie pipe was lowered into the 2" PVC pipe and grout was pumped from the bottom of the well to the ground surface. The grout was filled to the top of the well casing. Some settlement of this grout mixture may occur.

Date _____
N. Hickson



- Soil Test Boring/Monitoring Well Locations
(LETCO Report Dated October 18, 1983)
- ▲ Replacement Well Locations



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COLUMBIA, SOUTH CAROLINA

Pelham Phosphate Company
Pelham, Georgia

Boring Location Plan
Pelham Phosphate Company
Pelham, Georgia

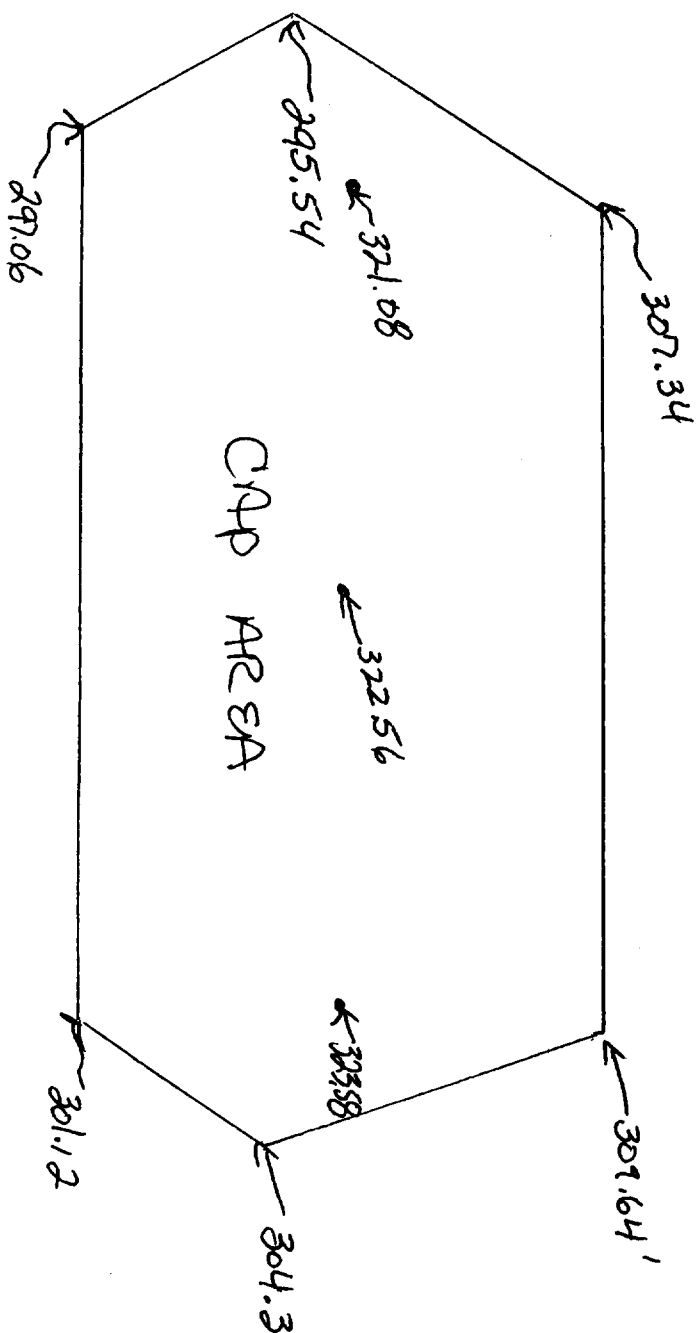
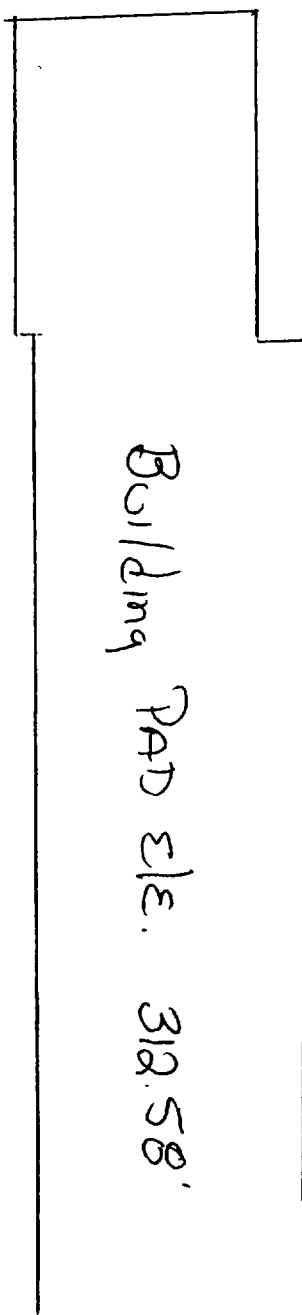
OWN BY	FKL	5/84	SCALE: Shown
CKD. BY	CRL	5/84	DRAWING NO.
APPR'D.	KPA	5/84	CO-818-1

STOLLER CHEMICAL
Elevations 6/16/98

SI	Stoller Chemical
B	2.2
W	

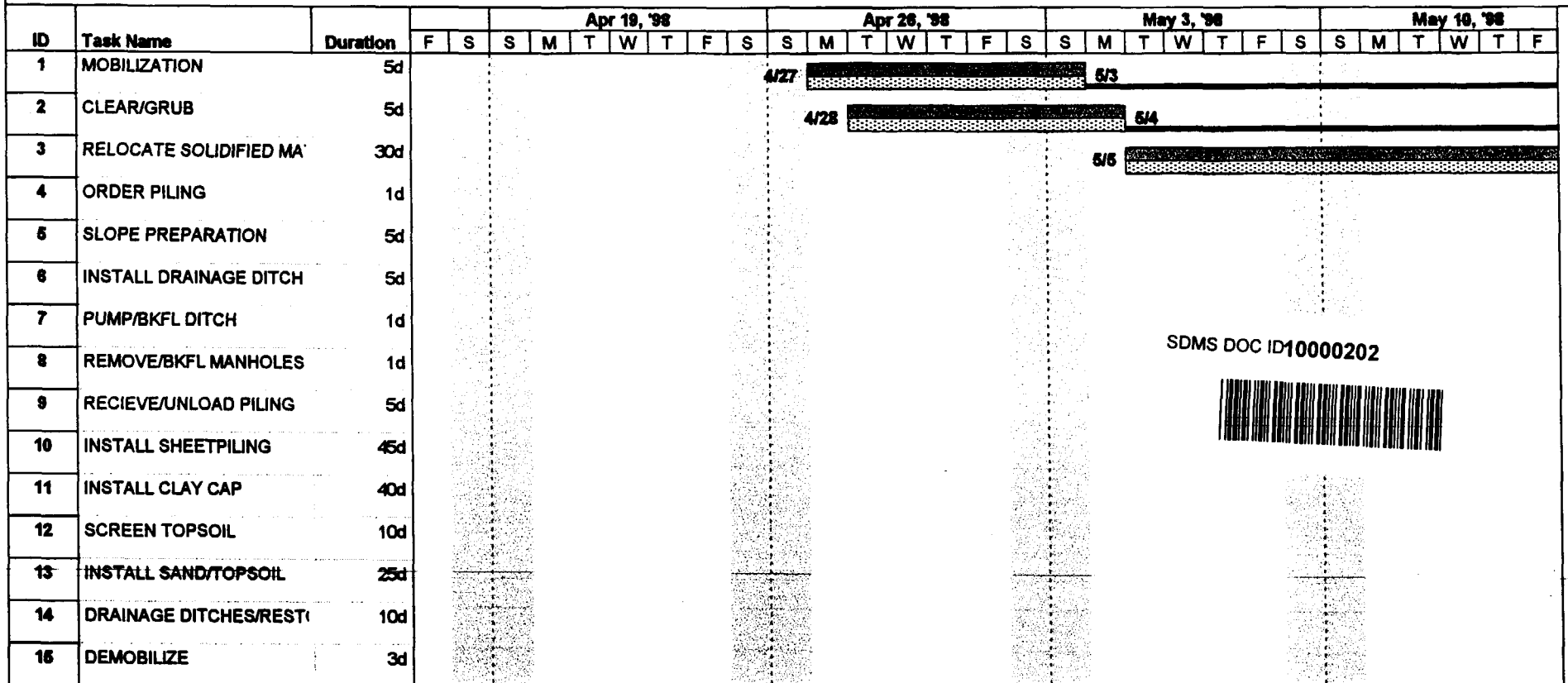


SDMS DOC ID10000112



**SHEETPILE/TOP CAP INSTALLATION
STOLLER CHEMICAL SITE
PELHAM, GEORGIA**

Stoller/Pelham
17



SDMS DOC ID10000202

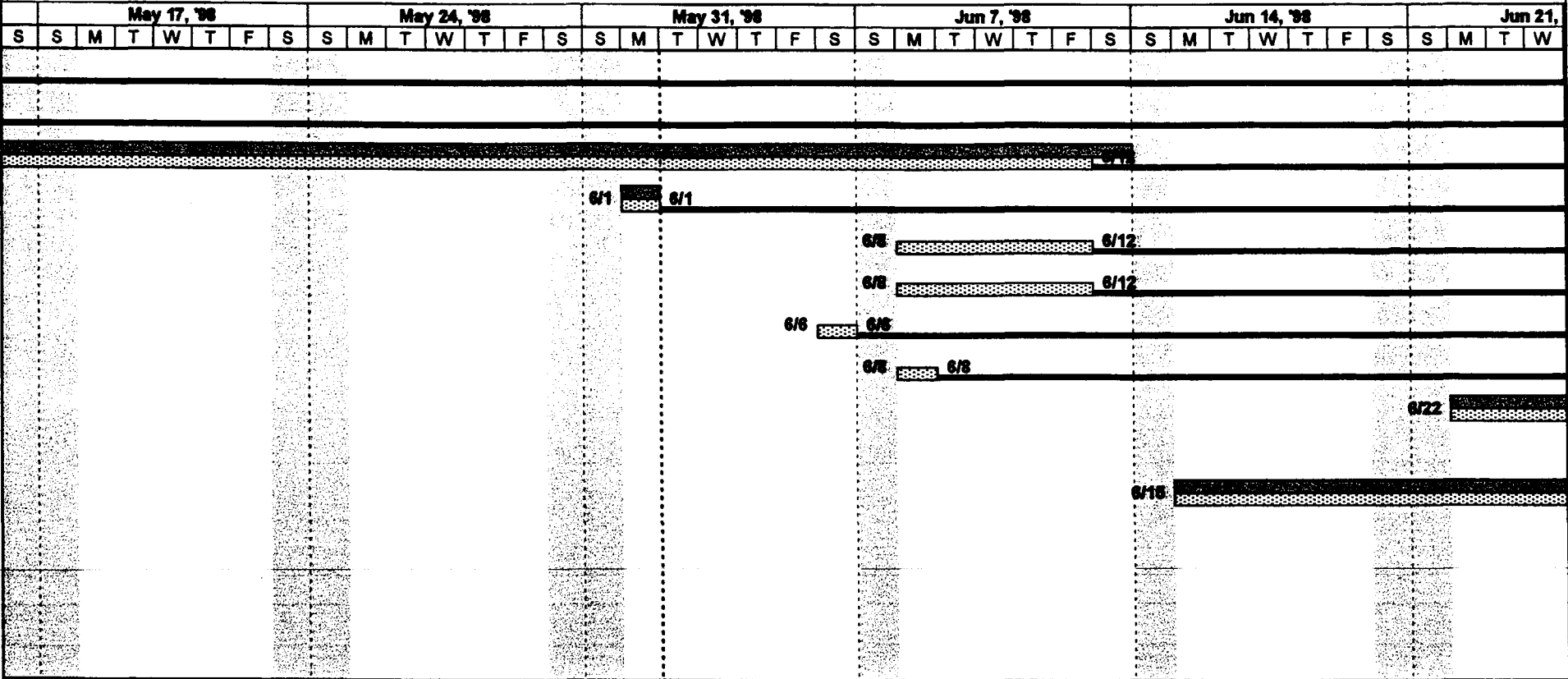


Project:
Date: 6/2/98

MB

Task		Milestone		Baseline Summary	
Task Progress		Baseline Milestone		Rolled Up Baseline	
Critical Task		Summary		Rolled Up Baseline Milestone	
Critical Task Progress		Rolled Up Task		Rolled Up Progress	
Baseline		Rolled Up Critical Task			
Slack		Rolled Up Milestone			

SHEETPILE/TOP CAP INSTALLATION
STOLLER CHEMICAL SITE
PELHAM, GEORGIA



Project:
Date: 6/2/98

**SHEETPILE/TOP CAP INSTALLATION
STOLLER CHEMICAL SITE
PELHAM, GEORGIA**

[illegible]

Project:
Date: 6/2/98

Task



Task Progress



Critical Task



Critical Task Progress



Baseline



Slack



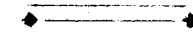
Milestone



Baseline Milestone



Summary



Rolled Up Task



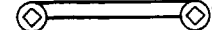
Rolled Up Critical Task



Rolled Up Milestone



Baseline Summary



Rolled Up Baseline



Rolled Up Baseline Milestone



Rolled Up Progress



[illegible]

[illegible]

From: Blair Stone-Schneider

Sent: Tuesday, March 8, 2016 8:12 AM

To: Benally Annie; Brooks, Janet; David Yogi; Edith Hood; Grace Henio; Sara Jacobs; micheledineyazhe@navajo-nsn.gov; Hubbard, Secody; Tom Jefferson; viviancraig@navajo-nsn.gov; Cooper, Viola; Ripperda, Mark; Bradley Henio; Wetmore, Cynthia; Terry Keyanna; Tom.; Peter Castiglia; weece.adam@ega.gov

Cc: Krissy Russell-Hedstrom

Subject: TASC Monthly Call Summary: March 7, 2016

Hello everyone,

Please see the agenda, attendance and action items from the March 7, 2016 TASC Monthly call. Please let me know if you have any questions or need more information. The next TASC Monthly call will take place on Monday, April 4 2016.

Best,
Blair

Call Agenda:

1. Hogan update
2. Fence update
3. Road and bridge updates
4. Upcoming dates:
TASC Call Monday, April 4, 2016

Attendance:

EPA Region 9: Sara Jacobs

RWPRCA: Jackie Bell-Jefferson, Peterson Bell, Teracita Keyanna, Annie Benally

Intera: Peter Castiglia

TASC: Blair Stone-Schneider

Action Items:

1. Blair Stone-Schneider will confirm the date for the April RWPRCA meeting and relay that information to Peter Castiglia.
2. Sara Jacobs will follow up with Peter Castiglia on the fencing letter from EPA and copy the community on this email.

Blair Stone-Schneider
Technical Assistance Specialist/Associate
Skeo Solutions
307-349-3601